U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

CLASSIFICATION ORDER 1887

MAY 5, 2009

PROJECT E-5809

The following classification changes will be effected by this order:

	Class	Subclass	Art Unit	Ex'r Search Room
Abolished:	310	12, 42, 49, 216-218, 254, 258, 259, 261	2834	OS0001
Established:	310	12.01-12.09, 12.11-12.19, 12.21-12.29, 12.31-12.33, 49.01-49.09, 49.11-49.19, 49.21-49.29, 49.31-49.39, 49.41-49.49, 49.51-49.55, 216.001-216.009, 216.011-216.019, 216.021-216.029, 216.031-216.039, 216.041-216.049, 216.051-216.059, 216.061-216.069, 216.071-216.079, 216.081-216.089, 216.091-216.099, 216.101-216.109, 216.111-216.119, 216.121-216.129, 216.131-216.137, 254.1, 261.1, 400-433	2834	OS0001
Title Change:	310	13	2834	OS0001
Indent Change:	310	260	2834	OS0001
Position Change:	310	13, 14	2834	OS0001

The following classes are also impacted by this order:
29, 68, 73, 74, 104, 123, 124, 191, 242, 258, 318, 334, 335, 336, 361, 362, 396

This order includes the following:

A. CLASSIFICATION MANUAL CHANGES

B. LISTING OF PRINCIPAL SOURCE OF ESTABLISHED AND DISPOSITION OF ABOLISHED SUBCLASSES

C. CHANGES TO THE USPC-TO-IPC CONCORDANCE

D. DEFINITION CHANGES AND NEW OR ADDITIONAL DEFINITIONS

CLASSIFICATION ORDER 1887

MAY 5, 2009

PROJECT E-5809

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CLASS 310 ELECTRICAL GENERATOR OR MOTOR STRUCTURE

MAY 2009

1 EDUCATIONAL OR CONSTRUCTION UNITS OR KITS
300 NON-DYNAMOELECTRIC
301 .Nuclear reaction
302 ..Contact potential difference
303 ..P-N semiconductor
304 ..Secondary electron emission
305 ..Direct charge particle emission
306 .Thermal or pyromagnetic
307 ..With heat actuated bimetal element
308 .Charge accumulating
309 ..Electrostatic
310 ...Friction
311 .Piezoelectric elements and devices
312 ..Adding or subtracting mass
313 R ..Surface acoustic wave devices
313 A ...Orientation of piezoelectric material
313 B ...Interdigitated electrodes
313 C ....Envelope or apodized
313 D ....Grating or reflector in wave path
314 ..Electrical systems
315 ...Temperature compensation circuits
316.01 ...Input circuit for simultaneous electrical and mechanical output from piezoelectric element
316.02 ....Traveling wave motor
316.03 ....Charging and discharging
317 ...Input circuit for mechanical output from piezoelectric element
318 ...Input circuit for electrical output from piezoelectric element
319 ...Electrical output circuit
320 ..Piezoelectric slab having different resonant frequencies at different areas
321 ..Combined with resonant structure
322 ...Acoustic wave type generator or receiver
323.01 ...Direct mechanical coupling
323.02 ....Motor producing continual motion
323.03 .....Traveling wave motor
323.04 ......Stator
323.05 ....Support
323.06 ....Piezoelectric element or electrode
323.07 ....Oval track
323.08 ......Armature
323.09 ....Pressing means detail
323.11 ......Specific material or composition
323.12 .....Langevin or pencil type motor
323.13 ......Output member detail
323.14 ....Roller or ball element
323.15 ....Material or material property
323.16 .....Eliptical motion at fixed point (i.e., walking) or Ratchet and Pawl motor
323.17 ....Positions an object
323.18 ....Device performs work on an object (e.g., welding, cutting)
323.19 ....Horn or transmission line
323.21 ....Detector (e.g., sensor)
324 ...Diaphragm
325 ...Sandwich or Langevin type
326 ..Combined with damping structure
327 ...On back of piezoelectric element
328 ..With mechanical energy coupling means
329 ...Including inertia type operator
330 ...Bending type
331 ....Plural elements
332 .....Multimorph
333 ...Shear or torsional type
334 ...Acoustic wave type generator or receiver
335 ....With lens or reflector
336 ....Nondestructive testing type
337 ....Underwater type
338 ...Force or pressure measuring type
339 ...Voltage, spark or current generator
340 ..Encapsulated or coated
341 ..With temperature modifier and/or gas or vapor atmosphere control
342 ...For plural piezoelectric elements
343 ...With heating element
344 ...Sealed unit
345 ..Supported by elastic material
346 ..With temperature compensating structure
347 ...Compensated air gap
348 ..With mounting or support means
349 ...Air gap
350 ....Adjustable
351 ...Suspended by thin member
352 ....Point contact on major surfce only
353 ....Contact at edges only
354 ...Clamped
355 ....Spring bias
356 .....90 degrees to major surface and margin clamped only
357 ..Orientation of piezoelectric polarization
358 ...Ceramic composition (e.g., barium titanate)
359 ....More than one poling direction (e.g., Rosen transformer)
360 ..Rotation of crystal axis (e.g., cut angle)
361 ...Quartz
362 ...Rochelle salt
363 ..Electrode materials
364 ...Multilayer
365 ..Electrode arrangement
366 ...More than two
367 ..Piezoelectric element shape
368 ...Rectangular plate
369 ...Circular disc, ring, or cylinder
370 ..."U" or "tuning fork" shape
371 ...Sphere or hemisphere
10 DYNAMOELECTRIC
11 .Conducting fluid
15 .Reciprocating
16 ..With cooling or temperature modification
17 ..With other elements
19 ...Speed control or time delay

DYNAMOELECTRIC
.Reciprocating
..With other elements
20 ...Motion-converting mechanism
21 ....Pivoted or flat-spring armature
22 .....Plural armatures
23 ....Solenoid and core type
24 .....Plural cores
25 ..Reed type
26 ..Magnetostrictive
27 ..Fixed and movable wound elements
28 ..Direct-connected
29 ...Pivoted or flat-spring armature
30 ...Solenoid and core
31 ..Self-actuated interrupter
32 ...Pivoted or flat-spring armature
33 ....Plural armatures
34 ...Solenoid and core
35 ....Successively energized solenoid coils
36 .Oscillating
37 ..With motion-converting mechanism
38 ..Direct-connected
39 ..With interrupter
* 12.01 .Linear
* 12.02 ..Having structure to facilitate assembly
* 12.03 ..Micromachine (e.g., MEMS device, nanotechnology)
* 12.04 ..Specific use device
* 12.05 ...X-Y positioner
* 12.06 ....Precision type (e.g., for integrated circuit manufacture)
* 12.07 ...Projector (e.g., rail gun)
* 12.08 ...Disk drive head motor
* 12.09 ...Rail vehicle (e.g., train, trolley)
* 12.11 ...Conveyor or elevator motor
* 12.12 ...Generator
* 12.13 ..Plural dynamoelectric machines (e.g., motors, generators)
* 12.14 ..Motor having both linear and rotary movement
* 12.15 ..Plural stators or movable elements
& 13 ..Fixed and movable wound element type
& 14 ..Solenoid and core type
* 12.16 ..Voice coil type
* 12.17 ..Stepping or linear pulse type
* 12.18 ..Synchronous type (e.g., variable reluctance)
* 12.19 ..Having structure to facilitate control (e.g., position detector)
* 12.21 ..Coil structure
* 12.22 ...Shape or spacing (e.g., multiple phase winding)
* 12.23 ...Coating
* 12.24 ..Magnet or pole structure
* 12.25 ...Size, spacing or orientation (e.g., tilted)
* 12.26 ...Shape
* 12.27 ..Mechanical element
* 12.28 ...Commutation
* 12.29 ...Cooling
* 12.31 ...Support for movable element (e.g., bearing)
* 12.32 ...Connection to load
* 12.33 ...Enclosure
40 R .Rotary
40.5 ..Self-nutating or moving (e.g., oscillating fan, etc.)
41 ..With mechanical starters
43 ..Molded plastic
44 ..Powdered metal
45 ..Impregnated or coated
46 ..Magnetic motors
47 ...Portable or hand tool (e.g., dry shavers)
48 ...With other elements
* 49.01 ...Stepping
* 49.02 ....Having a coil axially concentric to rotor axis (e.g., toroid coil)
* 49.03 .....With bias magnet to position rotor (e.g., parking magnet, auxiliary flux)
* 49.04 ......Bias magnet positioned between two axially concentric coils
* 49.05 .....Axially adjacent to rotor end
* 49.06 ......Plural coil and rotor combinations
* 49.07 ......Coil axially adjacent to each end of a rotor
* 49.08 .....Having poles extending to opposite radial sides of rotor
* 49.09 .....Having poles extending to opposite axial ends of rotor
* 49.11 .....Having particular flux plate or yoke
* 49.12 ......With alignment mechanism
* 49.13 .....Having coil bobbin
* 49.14 ......Integral with pole or flux plate
* 49.15 .....Having interfitting poles
* 49.16 ......Having a particular dimension
* 49.17 ......Having a particular shape
* 49.18 .....With rotary to linear conversion
* 49.19 .....Having plural axially concentric coils
* 49.21 .....Having a single axially concentric coil
* 49.22 ....Axially thin type (e.g., disk-shaped motor, planer)
* 49.23 .....Having a particular stator feature
* 49.24 ......Asymmetric stator pole spacing
* 49.25 ......Inner and outer notches
* 49.26 ......Stator pole having inner notch
* 49.27 .....Having integral poles
* 49.28 ......Permanent magnet on stator
* 49.29 ......Plural separate stator core sections facing rotor
* 49.31 .....Two sections
* 49.32 ....Permanent magnet rotor with axially directed flux path
* 49.33 .....Having stepping function related to a particular stator winding arrangement
* 49.34 .....Having particular stator pole feature

DYNAMOELECTRIC
.Rotary
..Magnetic motors
...Stepping
....Permanent magnet rotor with axially directed flux path
.....Having particular stator pole feature
* 49.35 .....Shifted or skewed stator pole
* 49.36 .....Magnet in pole tooth
* 49.37 .....Having particular stator-pole to rotor-pole relationship
* 49.38 .....Having plural rotor cores of different lengths
* 49.39 .....Plural rotor sections (e.g., segmented rotor)
* 49.41 .....Separated by non-magnetic spacer or air gap
* 49.42 ....Having dual axial air gaps
* 49.43 ....Reluctance type
* 49.44 .....Having a particular stator pole to rotor pole relationship
* 49.45 .....Having a stepping function related to a particular stator winding arrangement
* 49.46 .....Having stator with winding and permanent magnet
* 49.47 ....Gearing defines stepping effect
* 49.48 .....Positioned in magnetic air gap
* 49.49 .....Pawl and ratchet type
* 49.51 ....Plural stators define stepping effect
* 49.52 ....Commutator defines stepping effect
* 49.53 ....Permanent magnet defines stepping effect
* 49.54 ....Windings define stepping effect
* 49.55 ....Start or stop locating feature (e.g., parking magnet, detent)
50 ..Portable or hand tool
51 ..Vibration or noise suppression
52 ..Cooling or fluid contact
53 ...With control means
54 ...Liquid coolant
55 ...Nonatmospheric gas
56 ...With gas purification or treating
57 ...Intermediate confined coolant
58 ...Circulation
59 ....Plural units or plural paths
60 R ....Self-forced
61 .....Rotor passage
62 .....Suction pump or fan
63 .....Pressure pump or fan
60 A .....Hollow passages
64 ....Heat-exchange structure
65 .....Spacers (e.g., laminae, coils, etc.)
66 ..With other elements
67 R ...Inbuilt or incorporated unit
67 A ....Bicycle-hub generators
68 R ...Electric circuit elements
69 ....Shaft-driven switch (e.g., blasting generators)
70 R .....Distributor or timer (e.g., ignition magnetos)
70 A .....Ignition systems
71 ....Connectors, terminals or lead-ins
72 ....Impedance devices
73 ....Illuminating devices
68 A ....Manually operable (e.g., switches, rheostats, etc.)
68 B ....Condition responsive (e.g., position, torque, etc.)
68 C ....Temperature, current-responsive, i.e., protectors
68 D ....Conversion elements, (e.g., transformers, rectifiers, etc.)
68 E ....Motion responsive (e.g., centrifugal switches)
74 ...Inertia or fly-wheel device
75 R ...Drive mechanism
76 ....Brake and clutch
77 ....Brake
78 ....Clutch
79 ....Shaft and armature timing or phasing connection
80 ....Motion conversion
81 .....Unbalanced weight (e.g., vibrators)
82 .....Swash plate
83 .....Gearing
84 .....Impulse coupling
75 A ....Spring or gravity drive
75 B ....Hand- or foot-operated
75 C ....Rim drive (e.g., bicycle generator drive by wheel, rim, or tire)
75 D ....Flexible shaft or coupling and hollow shaft drive
85 ...Mechanical shields or protectors
86 ....Shield in air gap
87 ....Submersible
88 ....Dirt, moisture or explosion proof
89 ....Housings, windows or covers
90 ...Bearing or air-gap adjustment or bearing lubrication
90.5 ....Magnetic bearing
91 ...Supports
92 ..Torque-transmitting clutches or brakes
93 ...Brake type
94 ...Automatic control
95 ....By speed
96 ...With other drive mechanism
97 ....Output bias or resistance device
98 ....Drive motor
99 ....Gearing
100 ....Mechanical clutch
101 ...Plural units
102 R ...Generator-motor type
102 A ....Homopolar clutches
103 ...Magnetic field type
104 ....With air-gap shield
105 ....Induced or eddy current type
106 .....Magnetic reluctance feature
107 .....With collection means for induced current
108 ......Delivery to external device
109 ....Electric motor

DYNAMOELECTRIC
.Rotary
..Torque-transmitting clutches or brakes
...Magnetic field type
....Induced or eddy current type
.....With collection means for induced current
......Delivery to external device
110 ....Impedance
111 ..Generated wave-form modification
112 ..Plural units, structurally united
113 ...Motor-generator sets
114 ..Plural rotary elements
115 ...Field and armature both rotate
116 ....Limited movement
117 .....Mechanical bias
118 ....With interconnecting drive mechanism
119 .....Fluid-drive mechanism
120 .....Friction-drive mechanism
121 .....Mechanically controlled element
122 ......By additional dynamoelectric machine
123 ......Friction brake
124 ...Plural short-circuited rotary elements
125 ....Squirrel cage type
126 ...Plural armatures in common field
127 ..Plural collector-type machines
128 ...Commutator and slip-ring type
129 ....Synchronous or rotary converter
130 .....For plural wire D.C. system
131 ....Different armature circuits
132 .....Polyphase armature winding
133 ....Common armature winding
134 .....With plural field windings
135 ....Commutator in field circuit
136 ...Plural commutator type
137 ....Double current D. C. machines
138 .....Dynamotor type
139 .....Hetero-axial excitation
140 ....Plural armature windings
141 .....Plural field windings
142 ....Plural field windings
143 ...Plural slip-ring sets
144 ....Plural armature windings
145 .....Plural sets of poles
146 .....Polyphase windings
147 .....Slip rings in field circuit
148 ...Plural sets of brushes
149 ....Plural field windings
150 .....Polyphase arrangement
151 ....Short circuiting conductor between brushes
152 ..Permanent magnet machines
153 ...Inbuilt with flywheel (magneto)
154.01 ...Permanent magnet stator
154.02 ....Combined with generating coil
154.03 ....Means for securing magnet
154.04 .....Cantilevered
154.05 .....Axial
154.06 ......Plural sets of magnets
154.07 .....Adhesive
154.08 .....Mounted to magnet yoke
154.09 ......Split housing/yoke
154.11 .....Embedded in core or pole
154.12 .....Cylindrical sleeve holder
154.13 .....Holder with pocket for magnet
154.14 .....Spring clip
154.15 ......Clip secured to housing
154.16 .....Axially pressing on magnets
154.17 .....Wedging between
154.18 ......With a magnetic wedge
154.19 ....With an integral wedge
154.21 ....Permanent magnet characterized by the shape of the magnet
154.22 .....With specific dimension
154.23 .....Horseshoe
154.24 .....Bar, square or rectangular
154.25 .....Disk, ring, or cylinder
154.26 ....With means to prevent or reduce demagnetization (i.e., auxiliary magnetic poles)
154.27 .....With an auxiliary pole extending between stator magnet and rotor
154.28 ....Specific magnetization
154.29 .....Specific position or shape
154.31 ....Single pole pair
154.32 .....Permanent magnet extends along an axis
154.33 .....Plural rotors
154.34 .....With adjustable magnetic structure
154.35 .....With specific pole pieces or pole shoes
154.36 ......Circumferentially spaced poles and magnets
154.37 ......Poles extending axially from magnets
154.38 ......Pole shoe shape
154.39 .....Different size
154.41 ......Laminated
154.42 .....Induced flux return pole
154.43 ....Additional permanent magnets
154.44 ....Additional shield or coating (non-magnetic)
154.45 ....Multiple pole pairs
154.46 .....With specific pole shoe pieces
154.47 .....Magnet extending between two poles
154.48 .....Induce flux return pole
154.49 .....Adjustable
155 ....Inductor type
156.01 ...Permanent magnet rotor
156.02 ....Transverse flux
156.03 ....With a hysteresis ring
156.04 ....Separate portion of the rotor magnet used as a thrust bearing
156.05 ....Separate portion of the rotor magnet used as a magnet for sensing (i.e., for position or frequency)
156.06 ....Combined with flux for sensing
156.07 ....Additional flux directing magnets
156.08 ....Mounting (such as on a surface of a shaft)
156.09 .....Keyed to shaft

DYNAMOELECTRIC
.Rotary
..Permanent magnet machines
...Permanent magnet rotor
....Mounting (such as on a surface of a shaft)
156.11 .....Magnets in shaft
156.12 .....Mounted on a sleeve/hub
156.13 ......Keyed to a sleeve/hub
156.14 ......Knurl between the sleeve/hub and a shaft
156.15 ......Induced flux pole on sleeve/hub
156.16 .....Spring mounted
156.17 ......Spring mounted flux shunt
156.18 .....With a threaded fastener
156.19 .....With a wedge
156.21 .....With an adhesive
156.22 .....With an axial end clamp
156.23 .....With casting material around the magnet
156.24 .....Including a spring mount to adjust a flux
156.25 .....Axially offset and radially magnetized magnets
156.26 .....Mounted on a bell shape hub
156.27 .....Including thermal compensation
156.28 .....Sleeve covering magnet face
156.29 .....Sleeve parallel to magnetic face
156.31 .....Banding around magnet
156.32 ....Including an axial air gap
156.33 .....With pole shoes
156.34 .....With a stator between a rotating flux return plate and rotor magnet
156.35 .....With single rotor magnet and plural stators
156.36 .....With plural sets of rotating magnets
156.37 ......With single stator and plural sets of rotating magnets
156.38 ....Specific shape
156.39 .....Horseshoe
156.41 .....Triangular
156.42 .....Star
156.43 .....Specific magnetization
156.44 ......Different pole width
156.45 ......Specific dimensions
156.46 ......Shaped to vary air
156.47 ......Skewed
156.48 ....Pole shoes/pole pieces
156.49 .....Radial flux path and radially positioned pole shoes
156.51 ......Laminated pole shoes with multiple pole pairs
156.52 ......Laminated pole shoes with single pole pair
156.53 ......Embedded in a core
156.54 ......Induced flux return poles
156.55 .....Circumferential flux path and circumferential pole shoes
156.56 ......Embedded
156.57 ......With slots or holes to guide flux
156.58 ......Different size pole shoes
156.59 ......Pole shoes fixed to hub or shaft
156.61 ......Pole shoes fixed with end plates
156.62 .....Axially magnetized with poles shoes at one end
156.63 ......Laminated pole shoes
156.64 .....Axially magnetized with pole shoes at both ends
156.65 ......Laminated pole shoes
156.66 ....Claw poles/interfitting poles/lundel
156.67 .....Laminated pole shoes
156.68 .....Poles formed by magnet
156.69 .....Plural sets of claw poles
156.71 .....Claw poles extend in the same axial direction
156.72 .....Additional support for magnet
156.73 .....Additional support for claw pole tips
156.74 ....Damping features
156.75 .....Damper plate on magnetic face
156.76 .....Damper in pole pieces
156.77 .....Damper cage around magnet
156.78 ....Squirrel cage
156.79 .....Including laminated ring
156.81 .....Magnet positioned between squirrel cage and stator
156.82 .....Axially magnetized magnets or axially positioned magnets
156.83 .....Including a flux barrier
156.84 ......Flux barrier is a magnet
157 ..Vertically disposed
158 ..Universal (A.C. or D.C.)
159 ..A.C.
160 ...Frequency converters
161 ...Phase-shifter type
162 ...Synchronous
163 ....Reaction type
164 .....Toroidal coil
165 ....D.C. excited
166 ...Induction
167 ....With repulsion-starting
168 ....Inductor-type generators (variable reluctance)
169 .....High frequency
170 ......Multifrequency
171 ....Induction generators
172 ....Shifting field (e.g., shading pole)
173 ...Commutated
174 ....Single phase
175 .....Conduction operation
176 .....Transformer operation
177 ..D.C.
178 ...Homopolar
179 ..Windings and core structure
180 ...Field or excitation windings or structure
181 ....Combined permanent and electromagnet
182 ....With short-circuited winding or conductor
183 .....Damper winding
184 ....Plural field windings
185 .....Plural sets of poles

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DYNAMOELECTRIC
.Rotary
..Windings and core structure
...Field or excitation windings or structure
....Plural field windings
186 .....Interpole, compensating or neutralizing poles
187 .....Slotted or divided pole
188 .....Differentially related
189 ....Variable length or tapped winding
190 ....Magnetic shunts for shifting field flux
191 ....Adjustable magnetic structure
192 ....Nonmagnetic inserts or air gaps
193 ....Nonuniform core cross section
194 ....Coil supports and spools
195 ...Armature or primary
196 ....Corona-prevention
197 ....With short-circuited winding or conductor
198 ....Plural windings
199 .....Combined stationary and rotary
200 ....Variable length or tapped windings
201 ....Bar windings
202 ....Open windings
203 ....Closed windings
204 .....Equalizers
205 .....Multiplex
206 .....Lap
207 .....Wave
208 ....Coils
209 ....Adjustable magnetic structure
210 ...Secondary windings or conductors
211 ....Squirrel cage
212 .....Inherently variable impedance (double squirrel cage)
213 ...Antiparasitic conductors (imbricated)
214 ...Coil retainers or slot closers
215 ...Slot liners
* 216.001 ...Core
* 216.002 ....Pole-less core (i.e., slotless, toothless)
* 216.003 ....Wire core
* 216.004 ....Laminated core
* 216.005 .....Having winding lead accommodation structure
* 216.006 .....Having particular grain orientation
* 216.007 .....Plural laminated segments radially united
* 216.008 .....Plural axially laminated segments circumferentially united
* 216.009 ......Having particular mating joint structure
* 216.011 .....Circumferentially offset laminations
* 216.012 ......Offset pole teeth
* 216.013 ......Having axially extended spirally-laminated core
* 216.014 ......Offset cooling fins
* 216.015 .....Plural diverse elements
* 216.016 ......Diverse laminations
* 216.017 ....Magnetic and nonmagnetic laminations
* 216.018 ....Different thicknesses
* 216.019 ....Having diverse shapes to accommodate coil contour
* 216.021 .....E-shaped
* 216.022 ......Having winding on center leg and magnetically coupled poles
* 216.023 .....C- or U-shaped core
* 216.024 ......Plural cores unified by magnetic coupling between poles, with a winding around the middle bend of each core
* 216.025 ....Two cores
* 216.026 ......Two cores unified by magnetic coupling between poles, with a winding on each side leg of each core
* 216.027 ......Two cores unified by structurally coupled poles, with a winding around the middle bend of each core
* 216.028 ......Having centrally-supported arcuate pole and a winding around each end of pole
* 216.029 ......Plural unified cores having a pole winding
* 216.031 ....Two cores
* 216.032 ......Two cores unified by a joint spring coupling between poles
* 216.033 ......Having winding around middle bend of core
* 216.034 ....Having magnetically coupled poles
* 216.035 ....Double-section core
* 216.036 ......Having winding around core side leg
* 216.037 ....Winding around each side leg
* 216.038 ......Core side legs extend along rotor axis
* 216.039 ......Core middle bend extends along rotor axis
* 216.041 .....Having axially extended spiral lamination
* 216.042 ......Having machined poles
* 216.043 ......Having bending notch
* 216.044 ......Having inter-layer mating projection and recess
* 216.045 .....Radially stacked
* 216.046 ......Spirally wound
* 216.047 ....Having axially-extended spiral-wound pole
* 216.048 .....Having interlamina mating structure on lamina face
* 216.049 .....Having a lamination including a radially extending mounting projection (e.g., mounting ear)
* 216.051 ......Dovetail projection
* 216.052 ......Provided only on partial number of laminations
* 216.053 .....Having integral spider (e.g., spokes)

DYNAMOELECTRIC
.Rotary
..Windings and core structure
...Core
....Laminated core
* 216.054 .....Non-planar lamination (e.g., wavy)
* 216.055 .....Having a particular outer peripheral shape
* 216.056 ......Cooling fin
* 216.057 .....Laminated pole
* 216.058 ......Securing means
* 216.059 ......Alternating laminations
* 216.061 ......Circumferentially stacked
* 216.062 ......Radially stacked
* 216.063 ......Wound lamination
* 216.064 ......Laminated pole tip (e.g., shoe)
* 216.065 .....Adhesively bonded laminations
* 216.066 ....Homogeneous core or yoke (e.g., solid core)
* 216.067 .....Molded magnetic powder resin
* 216.068 .....Reshaped magnetic element (e.g., bent sheet)
* 216.069 ....Having slot of particular shape
* 216.071 .....Plural diverse slot shapes
* 216.072 ......With plural diverse pole widths
* 216.073 .....With plural diverse pole shapes
* 216.074 ....Pole structure
* 216.075 .....Particular to switch reluctant machine
* 216.076 .....Having integral flux shunt
* 216.077 ......Via hole
* 216.078 .....Pivotally mounted (e.g., hinged)
* 216.079 .....Removable pole
* 216.081 ......Having intermediate spacer
* 216.082 ......Having wedge between pole and core
* 216.083 ......Having threaded fastener (e.g., screw)
* 216.084 ....With mating female threaded fastener element (e.g., bolt)
* 216.085 ....Fastened through pole flange
* 216.086 ......Dovetail connection
* 216.087 ....Having auxiliary bias force element
* 216.088 ....Split pole
* 216.089 ......Crimped connection
* 216.091 .....Pole tip (e.g., shoe)
* 216.092 ......Defining non-uniform air gap
* 216.093 ....Tapered tip
* 216.094 ....Via tip slot
* 216.095 ....With electrical conductor in slot (i.e., winding)
* 216.096 ......Asymmetrically shaped
* 216.097 ......Having a particular dimension
* 216.098 ......Removable tip
* 216.099 ......Magnetic inter-pole bridging structure
* 216.101 ....Cylindrical bridging structure
* 216.102 ....Integral with radially extending poles
* 216.103 ....Bridge defines distinct pole tip common to two adjacent poles
* 216.104 ......With nonmagnetic inter-pole tip support
* 216.105 ....Insulated
* 216.106 ....Having flux guide
* 216.107 .....For reluctant rotor core
* 216.108 ....Having flux shield
* 216.109 ....Spaced-segment core
* 216.111 ....Core having a particular dimension
* 216.112 .....Specific pole pitch
* 216.113 ....Having a particular binding or supporting means
* 216.114 .....End ring or plate
* 216.115 ......Insulated
* 216.116 ......Secured to shaft
* 216.117 ....With balancing weight
* 216.118 ......Secured to frame
* 216.119 ......Having a cooling channel
* 216.121 .....Secured to shaft
* 216.122 ......Two axial end shafts
* 216.123 ......Keyed to shaft
* 216.124 ......Resilient securing means
* 216.125 .....Secured by wedge
* 216.126 ......Fastened wedge
* 216.127 ......Secured by threaded fastener (e.g., screw)
* 216.128 ......Insulated fastener
* 216.129 .....Secured by axially extending bar
* 216.131 .....Secured by axially directed clamping means (e.g., spring clip)
* 216.132 ......Positioned in core slot
* 216.133 ......Positioned in axial through hole
* 216.134 ......Integral with supporting element
* 216.135 .....Secured by circumferential clip
* 216.136 .....Secured by weld
* 216.137 .....Secured by bonding agent
219 ..Current collectors
220 ...Spark-reduction
221 ....Arc extinguishers
222 ....Spark-neutralizing current
223 ....Flux compensators
224 .....Commutating poles or windings
225 .....Short-circuited coil circuit
226 .....Field-distortion
227 ...With cooling
228 ...With cleaning, lubricating, resurfacing or repairing
229 ...Brush-traversing
230 ...Circumferential brush shifting on reversal
231 ...Rotary structure
232 ....Slip rings
233 ....Commutators
234 .....Winding connectors
235 .....Molded support
236 .....Cylindrical or drum
237 .....Disc
238 ...Fixed structure
239 ....Brush holders or rigging
240 .....Brush-lifting
241 .....Circumferential adjustment
242 .....Brush engagements or guides
243 .....Fluid pressure-operated
244 .....Brush affixed to pivoted arm

DYNAMOELECTRIC
.Rotary
..Current collectors
...Fixed structure
....Brush holders or rigging
245 .....Slidable brush
246 ......Pressure arm
247 ......Axial spring
248 ....Brushes
249 .....With electrical connector
251 .....Structure (e.g., composite material)
252 .....With composition feature
253 ......Carbonaceous
* 400 ..End shield
* 401 ...Having legs for supporting a bearing (e.g., spokes)
* 402 ...Having particular frame- or core-mating feature (e.g., keyed, projection/recess)
* 403 ....Threaded mating surface
* 404 ....Folded rim
* 405 ...Recessed into frame or core
* 406 ...Cup-shaped end shield connected to another end shield
* 407 ....Two cup-shaped end shields
* 408 .....Having distinct connecting frame
* 409 .....Having overlapped open ends (e.g., telescoped open ends)
* 410 ...Having frame between two end shields
* 411 ...Particularly adapted to be secured to a core end ring
* 412 ...Particularly adapted for use with impregnated core
* 413 ...Having particular mounting fastener detail
* 414 ....Core fastener with insulated bushing
* 415 ....Plural distinct mounting fasteners
* 416 ...Having coil lead retainer
* 417 ...Having ventilation hole
* 418 ..Frame
* 419 ...Adjustable
* 420 ...Shaft mounted spider (e.g., spokes)
* 421 ....Having particular spoke
* 422 ....Having particular core securing means
* 423 .....Resilient
* 424 ....Having a particular hub
* 425 ...Base with bearing support
* 426 ...Leg-supported from base
* 427 ...Supported by axial bar
* 428 ...Axially split frame
* 429 ....Having air gap
* 430 ....Welded sections
* 431 ...Having resilient core attachment means
* 432 ...Having axial tie bar for attaching core
* 433 ....Dovetailed to core
* 254.1 ..Miscellaneous stator structure
255 ...For railway-type machines
256 ...Stray field flux loss prevention
257 ...Interfitting or claw-tooth stators
@ 260 ...End turn supports
* 261.1 ..Miscellaneous rotor structure
262 ...High-speed rotor type
263 ...Interfitting or claw tooth rotors
264 ...Armatures
265 ....Drum
266 ....Hollow (e.g., double air gap)
267 ....Ring
268 ....Disc
269 ....Salient pole
270 ...End turn supports
271 ...Banding
272 ..Elements
273 ..Miscellaneous
40 MM ..Miniature motors

****
CROSS-REFERENCE ART COLLECTION
****

800 PIEZOELECTRIC POLYMERS (E.G., PVDF)

****
FOREIGN ART COLLECTIONS
****

FOR 000 CLASS-RELATED FOREIGN DOCUMENTS

Any foreign patents or non-patent literature from subclasses that have been reclassified have been transferred directly to FOR Collections listed below. These Collections contain ONLY foreign patents or non-patent literature. The parenthetical references in the Collection titles refer to the abolished subclasses from which these Collections were derived.

FOR 100 Permanent magnet stator (310/154)
FOR 101 Permanent magnet rotor (310/156)
* FOR 102 .Linear (310/12)
* FOR 103 ..With assembling, metal casting or machining feature (310/42)
* FOR 104 ...Step-by-step (310/49R)
* FOR 105 ...Core features (310/216)
* FOR 106 ....Securing laminae (310/217)
* FOR 107 ....Pole assembly and securing means (310/218)
* FOR 108 ..Stator structure (310/254)
* FOR 109 ...Frame and core type (310/258)
* FOR 110 ....Core assembly (310/259)
* FOR 111 ..Rotor structure (310/261)

****
DIGESTS
****

DIG 2 Hysteresis rotors and motors
DIG 3 Hall effect generators and converters
DIG 6 Printed-circuit motors and components

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SOURCE CLASSIFICATION(S) OF PATENTS
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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
29/596	1	310/217	148
	4	310/42	180
29/598	1	310/42	180
310/10	1	310/42	180
310/11	3	310/12	879
310/112	1	310/42	180
310/114	1	310/261	236
310/12.01	1	310/42	180
	12	310/12	879
	45	310/12	879
310/12.02	2	310/42	180
	11	310/12	879
	12	310/12	879
310/12.03	1	310/12	879
	4	310/12	879
310/12.04	24	310/12	879
	30	310/12	879
310/12.05	8	310/12	879
	22	310/12	879
310/12.06	22	310/12	879
	49	310/12	879
310/12.07	8	310/12	879
	8	310/12	879
310/12.08	1	310/42	180
	2	310/12	879
	13	310/12	879
310/12.09	4	310/12	879
	21	310/12	879
310/12.11	4	310/12	879
	12	310/12	879
310/12.12	7	310/12	879
	8	310/12	879
310/12.13	4	310/12	879
	5	310/12	879
310/12.14	8	310/12	879
	17	310/12	879
310/12.15	12	310/12	879
	22	310/12	879
310/12.16	1	310/42	180
	4	310/12	879
	13	310/12	879
310/12.17	2	310/49 R	517
	8	310/12	879

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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	14	310/12	879
310/12.18	1	310/261	236
	1	310/42	180
	5	310/12	879
	13	310/12	879
310/12.19	33	310/12	879
	33	310/12	879
310/12.21	12	310/12	879
	30	310/12	879
310/12.22	10	310/12	879
	17	310/12	879
310/12.23	1	310/42	180
	3	310/12	879
	7	310/12	879
310/12.24	31	310/12	879
	90	310/12	879
310/12.25	9	310/12	879
	31	310/12	879
310/12.26	5	310/12	879
	14	310/12	879
310/12.27	1	310/216	352
	8	310/12	879
	29	310/12	879
310/12.28	7	310/12	879
310/12.29	16	310/12	879
	20	310/12	879
310/12.31	2	310/42	180
	9	310/12	879
	14	310/12	879
310/12.32	4	310/12	879
	15	310/12	879
310/12.33	1	310/42	180
	6	310/12	879
	7	310/12	879
310/14	2	310/12	879
310/145	1	310/261	236
310/154.07	1	310/42	180
310/154.11	2	310/42	180
310/154.12	1	310/42	180
310/154.13	1	310/42	180
310/154.17	1	310/218	172
310/154.22	1	310/42	180
310/156.02	1	310/218	172

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New Classification	Number of ORs	Source Classification	Number of ORs
310/156.03	1	310/49 R	517
310/156.08	1	310/261	236
310/156.12	1	310/261	236
	3	310/42	180
310/156.16	2	310/42	180
310/156.19	1	310/261	236
310/156.21	1	310/261	236
	1	310/42	180
310/156.26	1	310/261	236
310/156.27	1	310/261	236
310/156.28	1	310/42	180
310/156.37	1	310/254	429
310/156.38	1	310/261	236
	1	310/42	180
310/156.49	1	310/254	429
310/156.53	1	310/216	352
	2	310/261	236
310/156.55	1	310/42	180
310/156.61	1	310/261	236
310/156.69	1	310/254	429
310/156.79	1	310/261	236
310/164	2	310/258	265
310/166	1	310/42	180
310/17	1	310/12	879
310/179	1	310/254	429
	1	310/261	236
310/181	1	310/218	172
	1	310/254	429
	1	310/42	180
310/182	1	310/218	172
310/184	2	310/254	429
	2	310/42	180
310/194	1	310/261	236
	2	310/254	429
310/195	1	310/261	236
310/201	1	310/254	429
310/207	1	310/254	429
310/208	1	310/254	429
	1	310/258	265
	1	310/42	180
	2	310/218	172
	2	310/261	236
310/211	1	310/216	352

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New Classification	Number of ORs	Source Classification	Number of ORs
	1	310/217	148
	1	310/218	172
	1	310/261	236
	4	310/42	180
310/215	1	310/261	236
	2	310/254	429
310/216.001	1	310/259	102
	1	310/259	102
	1	310/261	236
	2	310/254	429
	2	310/261	236
	5	310/217	148
	13	310/216	352
	14	310/254	429
310/216.002	1	310/216	352
	1	310/258	265
	2	310/254	429
	2	310/259	102
	2	310/42	180
	7	310/261	236
	8	310/254	429
310/216.003	1	310/216	352
	1	310/254	429
	1	310/259	102
	1	310/259	102
	1	310/261	236
	2	310/254	429
310/216.004	1	310/12	879
	1	310/218	172
	1	310/254	429
	1	310/258	265
	1	310/259	102
	1	310/42	180
	1	310/42	180
	2	310/217	148
	2	310/218	172
	2	310/261	236
	4	310/216	352
	9	310/254	429
	10	310/217	148
	17	310/216	352
310/216.005	2	310/216	352
310/216.006	1	310/217	148

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SOURCE CLASSIFICATION(S) OF PATENTS
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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	5	310/216	352
	6	310/216	352
310/216.007	1	310/216	352
	1	310/217	148
	1	310/259	102
	1	310/259	102
	1	310/42	180
	3	310/216	352
310/216.008	1	310/254	429
	1	310/258	265
	1	310/259	102
	1	310/261	236
	3	310/216	352
	3	310/217	148
	4	310/254	429
	14	310/216	352
310/216.009	1	310/217	148
	1	310/259	102
	2	310/216	352
	2	310/217	148
	2	310/258	265
310/216.011	1	310/217	148
	1	310/254	429
	1	310/261	236
	2	310/217	148
	2	310/258	265
	2	310/261	236
	3	310/216	352
	3	310/259	102
	6	310/216	352
310/216.012	1	310/218	172
	2	310/218	172
	3	310/216	352
	7	310/216	352
310/216.013	1	310/216	352
	1	310/217	148
	1	310/42	180
	2	310/261	236
	2	310/261	236
	3	310/216	352
310/216.014	1	310/216	352
	1	310/217	148
	2	310/216	352

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SOURCE CLASSIFICATION(S) OF PATENTS
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New Classification	Number of ORs	Source Classification	Number of ORs
310/216.015	1	310/216	352
	1	310/218	172
	1	310/259	102
	2	310/258	265
	2	310/261	236
	3	310/254	429
310/216.016	1	310/259	102
	1	310/261	236
	2	310/217	148
	4	310/216	352
	4	310/216	352
	4	310/217	148
310/216.017	1	310/216	352
	1	310/217	148
	1	310/218	172
	1	310/42	180
	2	310/261	236
	4	310/216	352
310/216.018	1	310/216	352
	1	310/216	352
	1	310/259	102
	1	310/42	180
	2	310/217	148
310/216.019	1	310/254	429
	2	310/216	352
	3	310/216	352
310/216.021	1	310/49 R	517
	4	310/254	429
310/216.022	1	310/218	172
	1	310/254	429
	2	310/258	265
	2	310/259	102
310/216.023	1	310/217	148
	1	310/218	172
	1	310/254	429
	1	310/254	429
	2	310/259	102
	7	310/216	352
310/216.024	1	310/258	265
	2	310/218	172
	2	310/254	429
310/216.025	1	310/259	102
	2	310/254	429

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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	2	310/258	265
310/216.026	1	310/218	172
	1	310/49 R	517
	2	310/258	265
310/216.027	1	310/216	352
	1	310/218	172
	2	310/254	429
310/216.028	1	310/216	352
	1	310/254	429
	1	310/258	265
	2	310/216	352
	2	310/259	102
310/216.029	1	310/261	236
	2	310/216	352
	5	310/254	429
310/216.031	2	310/216	352
	2	310/258	265
	2	310/259	102
310/216.032	4	310/258	265
310/216.033	1	310/49 R	517
	2	310/42	180
	3	310/258	265
	3	310/259	102
	5	310/254	429
310/216.034	1	310/217	148
	1	310/254	429
	1	310/42	180
	2	310/216	352
310/216.035	1	310/216	352
	2	310/259	102
310/216.036	1	310/216	352
	1	310/49 R	517
	3	310/254	429
310/216.037	1	310/254	429
	1	310/42	180
	2	310/218	172
	2	310/259	102
	11	310/254	429
310/216.038	1	310/261	236
	4	310/254	429
310/216.039	1	310/217	148
	1	310/49 R	517
	2	310/258	265

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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	3	310/42	180
	4	310/254	429
310/216.041	1	310/217	148
	1	310/259	102
	2	310/216	352
	4	310/216	352
310/216.042	1	310/259	102
	2	310/216	352
310/216.043	2	310/259	102
	4	310/216	352
	7	310/216	352
310/216.044	2	310/216	352
	2	310/217	148
	4	310/216	352
310/216.045	1	310/217	148
	1	310/254	429
	1	310/42	180
	5	310/216	352
310/216.046	1	310/216	352
310/216.047	6	310/216	352
310/216.048	1	310/259	102
	1	310/42	180
	2	310/216	352
	4	310/217	148
	6	310/216	352
	8	310/217	148
310/216.049	1	310/254	429
	1	310/259	102
	1	310/42	180
	2	310/216	352
	2	310/217	148
310/216.051	1	310/217	148
	1	310/258	265
	2	310/254	429
	2	310/258	265
310/216.052	1	310/217	148
	1	310/259	102
	3	310/258	265
310/216.053	1	310/261	236
	2	310/261	236
310/216.054	1	310/217	148
	1	310/254	429
	3	310/259	102

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SOURCE CLASSIFICATION(S) OF PATENTS
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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/216.055	1	310/258	265
	1	310/259	102
	1	310/42	180
	3	310/216	352
310/216.056	1	310/216	352
	1	310/216	352
	1	310/258	265
	1	310/259	102
310/216.057	1	310/217	148
	1	310/217	148
	1	310/259	102
	2	310/216	352
	2	310/258	265
	3	310/218	172
	5	310/254	429
310/216.058	1	310/217	148
	3	310/217	148
	6	310/218	172
310/216.059	1	310/258	265
	2	310/216	352
	2	310/216	352
	2	310/254	429
	2	310/259	102
	4	310/218	172
310/216.061	1	310/218	172
	2	310/216	352
	2	310/217	148
	3	310/254	429
310/216.062	1	310/216	352
	1	310/218	172
	1	310/254	429
	1	310/261	236
	2	310/217	148
	4	310/216	352
310/216.063	1	310/216	352
	1	310/216	352
	1	310/217	148
	1	310/218	172
310/216.064	1	310/216	352
	1	310/259	102
	2	310/216	352
	2	310/254	429
	3	310/218	172

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SOURCE CLASSIFICATION(S) OF PATENTS
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New Classification	Number of ORs	Source Classification	Number of ORs
310/216.065	1	310/258	265
	1	310/261	236
	2	310/216	352
	3	310/216	352
	3	310/217	148
	3	310/217	148
	3	310/259	102
310/216.066	1	310/216	352
	1	310/218	172
	1	310/258	265
	1	310/259	102
	1	310/261	236
	1	310/261	236
	1	310/49 R	517
	2	310/258	265
	3	310/254	429
	13	310/254	429
310/216.067	1	310/216	352
	1	310/217	148
	1	310/254	429
	1	310/258	265
	2	310/261	236
	2	310/261	236
	6	310/216	352
310/216.068	1	310/218	172
	2	310/258	265
	2	310/42	180
	3	310/254	429
310/216.069	1	310/258	265
	2	310/261	236
	3	310/254	429
	6	310/216	352
	6	310/216	352
310/216.071	1	310/216	352
	1	310/254	429
	1	310/258	265
	1	310/259	102
	2	310/261	236
	3	310/254	429
	4	310/216	352
310/216.072	1	310/216	352
	1	310/218	172
	1	310/259	102

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New Classification	Number of ORs	Source Classification	Number of ORs
	2	310/216	352
	3	310/254	429
310/216.073	1	310/218	172
	1	310/254	429
	1	310/259	102
310/216.074	1	310/216	352
	1	310/217	148
	1	310/258	265
	2	310/254	429
	2	310/261	236
	3	310/218	172
	4	310/254	429
	7	310/216	352
	10	310/218	172
310/216.075	1	310/216	352
	1	310/49 R	517
	4	310/261	236
310/216.076	1	310/218	172
	1	310/254	429
	1	310/259	102
	3	310/216	352
310/216.077	1	310/218	172
	5	310/218	172
310/216.078	1	310/218	172
	1	310/259	102
310/216.079	1	310/258	265
	1	310/259	102
	2	310/42	180
	3	310/218	172
	4	310/254	429
310/216.081	1	310/254	429
	3	310/218	172
310/216.082	1	310/218	172
	1	310/254	429
	1	310/261	236
	4	310/218	172
310/216.083	1	310/261	236
	1	310/42	180
	2	310/216	352
	3	310/258	265
	6	310/218	172
	12	310/254	429
310/216.084	2	310/218	172

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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	9	310/218	172
310/216.085	1	310/218	172
	1	310/254	429
	2	310/218	172
310/216.086	1	310/218	172
	2	310/259	102
	2	310/42	180
	7	310/218	172
310/216.087	1	310/254	429
	1	310/258	265
	3	310/218	172
310/216.088	1	310/216	352
	1	310/218	172
	1	310/258	265
	4	310/218	172
310/216.089	1	310/258	265
	1	310/259	102
	1	310/42	180
310/216.091	2	310/216	352
	3	310/254	429
	3	310/258	265
	4	310/218	172
	6	310/218	172
	10	310/216	352
310/216.092	1	310/218	172
	1	310/259	102
	2	310/216	352
	2	310/254	429
	2	310/261	236
	2	310/49 R	517
310/216.093	1	310/218	172
	1	310/258	265
	2	310/254	429
310/216.094	1	310/259	102
	3	310/216	352
	3	310/254	429
	4	310/218	172
	5	310/216	352
310/216.095	1	310/216	352
	1	310/218	172
	1	310/254	429
	2	310/218	172
310/216.096	1	310/216	352

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New Classification	Number of ORs	Source Classification	Number of ORs
	1	310/216	352
	1	310/218	172
	1	310/254	429
	1	310/42	180
	4	310/218	172
310/216.097	1	310/216	352
	1	310/216	352
	1	310/259	102
	2	310/254	429
	2	310/49 R	517
310/216.098	1	310/216	352
	1	310/42	180
	3	310/254	429
	11	310/218	172
310/216.099	1	310/258	265
	2	310/218	172
	3	310/254	429
310/216.101	1	310/218	172
	1	310/254	429
	1	310/258	265
	1	310/259	102
	1	310/42	180
	2	310/218	172
310/216.102	1	310/42	180
	2	310/218	172
	2	310/258	265
	3	310/216	352
	3	310/218	172
	4	310/254	429
	5	310/259	102
310/216.103	3	310/254	429
310/216.104	1	310/259	102
	1	310/261	236
	3	310/218	172
310/216.105	1	310/216	352
	2	310/218	172
	2	310/259	102
310/216.106	1	310/218	172
	1	310/254	429
	2	310/259	102
	3	310/216	352
	4	310/216	352
310/216.107	1	310/216	352

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	1	310/217	148
	1	310/254	429
	5	310/261	236
310/216.108	1	310/254	429
	2	310/258	265
310/216.109	1	310/216	352
	1	310/216	352
	2	310/258	265
	2	310/261	236
310/216.111	1	310/216	352
	1	310/259	102
	1	310/42	180
	2	310/254	429
	2	310/49 R	517
	6	310/216	352
310/216.112	1	310/216	352
	1	310/218	172
	2	310/254	429
	2	310/49 R	517
	3	310/216	352
310/216.113	1	310/216	352
	1	310/217	148
	1	310/258	265
	1	310/261	236
	2	310/42	180
	8	310/216	352
310/216.114	1	310/217	148
	1	310/254	429
	1	310/258	265
	1	310/261	236
	2	310/216	352
	2	310/258	265
	2	310/259	102
	3	310/254	429
	4	310/216	352
	6	310/217	148
310/216.115	1	310/216	352
	1	310/218	172
	1	310/261	236
	2	310/261	236
	3	310/216	352
	3	310/217	148
310/216.116	1	310/261	236

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	4	310/217	148
	6	310/261	236
310/216.117	1	310/42	180
	1	310/42	180
310/216.118	1	310/217	148
	1	310/42	180
	2	310/254	429
	7	310/258	265
310/216.119	1	310/258	265
	1	310/261	236
	1	310/261	236
	2	310/217	148
310/216.121	1	310/217	148
	1	310/217	148
	1	310/259	102
	2	310/216	352
	3	310/42	180
	8	310/261	236
310/216.122	5	310/261	236
310/216.123	3	310/217	148
	7	310/261	236
310/216.124	1	310/261	236
	1	310/49 R	517
	3	310/217	148
	8	310/258	265
310/216.125	5	310/258	265
	7	310/216	352
310/216.126	1	310/216	352
	3	310/258	265
310/216.127	1	310/216	352
	1	310/258	265
	1	310/259	102
	2	310/258	265
	2	310/42	180
	4	310/217	148
310/216.129	1	310/258	265
	1	310/259	102
	3	310/217	148
310/216.131	1	310/259	102
	1	310/42	180
	1	310/49 R	517
	3	310/217	148
	7	310/258	265

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/216.132	1	310/216	352
	1	310/218	172
	1	310/254	429
	1	310/258	265
	1	310/259	102
	3	310/217	148
	7	310/42	180
310/216.133	1	310/218	172
	1	310/258	265
	1	310/259	102
	3	310/217	148
	5	310/42	180
310/216.134	6	310/258	265
310/216.135	1	310/217	148
	1	310/258	265
310/216.136	1	310/217	148
	1	310/42	180
	3	310/258	265
	7	310/217	148
310/216.137	1	310/216	352
	1	310/254	429
	1	310/258	265
	1	310/261	236
	1	310/42	180
	1	310/42	180
310/232	1	310/261	236
	1	310/42	180
310/233	1	310/261	236
	1	310/42	180
310/239	2	310/42	180
310/254.1	1	310/216	352
	1	310/217	148
	1	310/49 R	517
	2	310/254	429
	2	310/258	265
	2	310/42	180
	3	310/259	102
	4	310/216	352
	5	310/261	236
	97	310/254	429
310/257	1	310/218	172
	1	310/258	265
	2	310/216	352

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	2	310/42	180
	3	310/254	429
310/260	1	310/254	429
	1	310/42	180
	2	310/259	102
310/261.1	1	310/218	172
	1	310/42	180
	2	310/216	352
	2	310/42	180
	3	310/254	429
	4	310/217	148
	5	310/261	236
	61	310/261	236
310/263	1	310/217	148
	1	310/254	429
	1	310/261	236
	1	310/42	180
310/266	1	310/49 R	517
310/270	1	310/254	429
	4	310/261	236
310/309	2	310/12	879
310/323.01	1	310/216	352
310/323.02	2	310/12	879
310/39	2	310/49 R	517
310/40 MM	3	310/42	180
310/400	1	310/216	352
	1	310/217	148
	2	310/42	180
	4	310/258	265
310/401	1	310/216	352
	1	310/259	102
	3	310/258	265
	4	310/254	429
310/402	1	310/254	429
	1	310/42	180
	2	310/254	429
	3	310/259	102
	6	310/258	265
310/403	1	310/254	429
	1	310/258	265
310/404	1	310/217	148
	1	310/258	265
	3	310/254	429

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/405	1	310/254	429
	1	310/254	429
	1	310/258	265
310/406	1	310/254	429
	4	310/258	265
310/407	1	310/218	172
	1	310/254	429
	2	310/258	265
310/408	2	310/258	265
310/409	4	310/254	429
310/410	1	310/217	148
	2	310/42	180
	8	310/254	429
	10	310/258	265
310/411	1	310/254	429
	1	310/259	102
	8	310/258	265
310/412	1	310/258	265
	3	310/258	265
310/413	1	310/258	265
	1	310/259	102
	2	310/254	429
310/414	1	310/259	102
	2	310/258	265
310/415	1	310/259	102
	4	310/258	265
310/416	2	310/254	429
310/417	1	310/254	429
	1	310/258	265
	1	310/42	180
	2	310/261	236
310/418	1	310/217	148
	1	310/254	429
	1	310/259	102
	2	310/217	148
	2	310/261	236
	3	310/258	265
	3	310/258	265
	3	310/42	180
	6	310/254	429
310/419	1	310/258	265
	1	310/259	102
	3	310/258	265

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SOURCE CLASSIFICATION(S) OF PATENTS
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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/420	1	310/254	429
	1	310/261	236
	2	310/254	429
	3	310/261	236
	3	310/42	180
310/421	4	310/261	236
310/422	8	310/261	236
310/423	1	310/218	172
	2	310/261	236
310/424	1	310/261	236
	1	310/42	180
	2	310/254	429
	3	310/261	236
310/425	1	310/258	265
	1	310/258	265
	1	310/261	236
	1	310/42	180
	3	310/254	429
	8	310/254	429
310/426	1	310/42	180
	7	310/254	429
	7	310/258	265
310/427	1	310/254	429
	1	310/42	180
	3	310/258	265
310/428	1	310/258	265
	2	310/42	180
	5	310/254	429
310/429	1	310/216	352
	1	310/218	172
	1	310/254	429
	1	310/259	102
	1	310/42	180
	2	310/261	236
	4	310/258	265
	11	310/254	429
310/43	1	310/254	429
	2	310/42	180
310/430	1	310/254	429
	1	310/258	265
	1	310/258	265
	2	310/254	429
310/431	15	310/258	265

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/432	1	310/254	429
	2	310/217	148
	2	310/42	180
	13	310/258	265
310/433	2	310/254	429
	25	310/258	265
310/45	1	310/254	429
	2	310/42	180
310/49.01	1	310/42	180
	8	310/49 R	517
	20	310/49 R	517
310/49.02	1	310/49 A	14
	2	310/49 R	517
	4	310/49 R	517
310/49.03	1	310/49 A	14
	1	310/49 R	517
	7	310/49 R	517
310/49.04	1	310/49 A	14
	1	310/49 R	517
	3	310/49 R	517
310/49.05	1	310/49 A	14
	5	310/49 R	517
	7	310/49 R	517
310/49.06	2	310/49 R	517
310/49.07	1	310/49 A	14
	1	310/49 R	517
	5	310/49 R	517
310/49.08	2	310/49 R	517
	16	310/49 R	517
310/49.09	5	310/49 R	517
	7	310/49 R	517
310/49.11	1	310/216	352
	1	310/49 A	14
	1	310/49 R	517
	12	310/49 R	517
310/49.12	1	310/49 A	14
	3	310/49 R	517
	8	310/49 R	517
310/49.13	1	310/49 R	517
	5	310/49 R	517
310/49.14	1	310/49 R	517
	2	310/49 R	517
310/49.15	4	310/49 R	517

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SOURCE CLASSIFICATION(S) OF PATENTS
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Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
310/49.16	1	310/49 R	517
	5	310/49 R	517
310/49.17	1	310/49 R	517
	3	310/49 A	14
	5	310/49 R	517
310/49.18	1	310/42	180
	2	310/49 R	517
	8	310/49 R	517
310/49.19	1	310/42	180
	3	310/49 R	517
	13	310/49 R	517
310/49.21	1	310/49 R	517
	4	310/49 R	517
310/49.22	18	310/49 R	517
310/49.23	1	310/216	352
	1	310/42	180
	30	310/49 R	517
310/49.24	6	310/49 R	517
310/49.25	2	310/49 R	517
310/49.26	2	310/49 R	517
310/49.27	1	310/42	180
310/49.28	2	310/49 R	517
310/49.31	1	310/49 R	517
310/49.32	1	310/49 A	14
	13	310/49 R	517
	25	310/49 R	517
310/49.33	6	310/49 R	517
	19	310/49 R	517
310/49.34	28	310/49 R	517
310/49.35	7	310/49 R	517
310/49.36	1	310/49 A	14
	12	310/49 R	517
310/49.37	48	310/49 R	517
310/49.39	2	310/49 R	517
310/49.41	3	310/49 R	517
310/49.42	18	310/49 R	517
310/49.43	24	310/49 R	517
310/49.44	1	310/42	180
	3	310/49 R	517
	4	310/49 R	517
310/49.45	1	310/49 R	517
	12	310/49 R	517
310/49.46	3	310/49 R	517

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	6	310/49 R	517
310/49.47	7	310/49 R	517
	7	310/49 R	517
310/49.48	6	310/49 R	517
310/49.49	7	310/49 R	517
310/49.51	4	310/49 R	517
	4	310/49 R	517
310/49.52	1	310/49 A	14
	2	310/49 R	517
310/49.53	4	310/49 R	517
	11	310/49 R	517
310/49.54	2	310/49 R	517
	8	310/49 R	517
310/49.55	1	310/49 R	517
	10	310/49 R	517
310/51	1	310/42	180
	2	310/49 R	517
	7	310/261	236
310/52	1	310/258	265
310/67 R	1	310/261	236
310/68 B	1	310/218	172
	1	310/261	236
	2	310/42	180
	2	310/49 R	517
310/71	1	310/261	236
	1	310/49 R	517
	4	310/42	180
310/78	1	310/42	180
310/82	1	310/49 A	14
	11	310/49 R	517
310/83	1	310/12	879
	2	310/42	180
	3	310/49 R	517
310/86	1	310/259	102
	2	310/42	180
310/87	1	310/49 R	517
310/89	1	310/258	265
	1	310/49 R	517
	2	310/254	429
	8	310/42	180
310/90	1	310/216	352
	1	310/254	429
	1	310/258	265

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SOURCE CLASSIFICATION(S) OF PATENTS
IN NEWLY ESTABLISHED SUBCLASSES REPORT

Generated by Data Control Division

New Classification	Number of ORs	Source Classification	Number of ORs
	1	310/261	236
	9	310/42	180
310/91	2	310/49 R	517
	4	310/42	180
324/200	1	310/42	180

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
310/12	879	310/11	3
		310/14	2
		310/17	1
		310/83	1
		310/309	2
		310/12.01	12
		310/12.01	45
		310/12.02	11
		310/12.02	12
		310/12.03	1
		310/12.03	4
		310/12.04	24
		310/12.04	30
		310/12.05	8
		310/12.05	22
		310/12.06	22
		310/12.06	49
		310/12.07	8
		310/12.08	2
		310/12.08	13
		310/12.09	4
		310/12.09	21
		310/12.11	4
		310/12.11	12
		310/12.12	7
		310/12.12	8
		310/12.13	4
		310/12.13	5
		310/12.14	8
		310/12.14	17
		310/12.15	12
		310/12.15	22
		310/12.16	4
		310/12.16	13
		310/12.17	8
		310/12.17	14
		310/12.18	5
		310/12.18	13
		310/12.19	33
		310/12.21	12
		310/12.21	30
		310/12.22	10
		310/12.22	17

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/12.23	3
		310/12.23	7
		310/12.24	31
		310/12.24	90
		310/12.25	9
		310/12.25	31
		310/12.26	5
		310/12.26	14
		310/12.27	8
		310/12.27	29
		310/12.28	7
		310/12.29	16
		310/12.29	20
		310/12.31	9
		310/12.31	14
		310/12.32	4
		310/12.32	15
		310/12.33	6
		310/12.33	7
		310/323.02	2
		310/216.004	1
310/42	180	29/596	4
		29/598	1
		310/10	1
		310/40 MM	3
		310/43	2
		310/45	2
		310/51	1
		310/68 B	2
		310/71	4
		310/78	1
		310/83	2
		310/86	2
		310/89	8
		310/90	9
		310/91	4
		310/112	1
		310/166	1
		310/181	1
		310/184	2
		310/208	1
		310/211	4
		310/232	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/233	1
		310/239	2
		310/257	2
		310/260	1
		310/263	1
		310/400	2
		310/402	1
		310/410	2
		310/417	1
		310/418	3
		310/420	3
		310/424	1
		310/425	1
		310/426	1
		310/427	1
		310/428	2
		310/429	1
		310/432	2
		310/12.01	1
		310/12.02	2
		310/12.08	1
		310/12.16	1
		310/12.18	1
		310/12.23	1
		310/12.31	2
		310/12.33	1
		310/254.1	2
		310/261.1	1
		310/261.1	2
		310/49.01	1
		310/49.18	1
		310/49.19	1
		310/49.23	1
		310/49.27	1
		310/49.44	1
		310/154.07	1
		310/154.11	2
		310/154.12	1
		310/154.13	1
		310/154.22	1
		310/156.12	3
		310/156.16	2
		310/156.21	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/156.28	1
		310/156.38	1
		310/156.55	1
		310/216.002	2
		310/216.004	1
		310/216.007	1
		310/216.013	1
		310/216.017	1
		310/216.018	1
		310/216.033	2
		310/216.034	1
		310/216.037	1
		310/216.039	3
		310/216.045	1
		310/216.048	1
		310/216.049	1
		310/216.055	1
		310/216.068	2
		310/216.079	2
		310/216.083	1
		310/216.086	2
		310/216.089	1
		310/216.096	1
		310/216.098	1
		310/216.101	1
		310/216.102	1
		310/216.111	1
		310/216.113	2
		310/216.117	1
		310/216.118	1
		310/216.121	3
		310/216.127	2
		310/216.131	1
		310/216.132	7
		310/216.133	5
		310/216.136	1
		310/216.137	1
		324/200	1
310/49 A	14	310/82	1
		310/49.02	1
		310/49.03	1
		310/49.04	1
		310/49.05	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/49.07	1
		310/49.11	1
		310/49.12	1
		310/49.17	3
		310/49.32	1
		310/49.36	1
		310/49.52	1
310/49 R	517	310/39	2
		310/51	2
		310/68 B	2
		310/71	1
		310/82	11
		310/83	3
		310/87	1
		310/89	1
		310/91	2
		310/266	1
		310/12.17	2
		310/254.1	1
		310/49.01	8
		310/49.01	20
		310/49.02	2
		310/49.02	4
		310/49.03	1
		310/49.03	7
		310/49.04	1
		310/49.04	3
		310/49.05	5
		310/49.05	7
		310/49.06	2
		310/49.07	1
		310/49.07	5
		310/49.08	2
		310/49.08	16
		310/49.09	5
		310/49.09	7
		310/49.11	1
		310/49.11	12
		310/49.12	3
		310/49.12	8
		310/49.13	1
		310/49.13	5
		310/49.14	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/49.14	2
		310/49.15	4
		310/49.16	1
		310/49.16	5
		310/49.17	1
		310/49.17	5
		310/49.18	2
		310/49.18	8
		310/49.19	3
		310/49.19	13
		310/49.21	1
		310/49.21	4
		310/49.22	18
		310/49.23	30
		310/49.24	6
		310/49.25	2
		310/49.26	2
		310/49.28	2
		310/49.31	1
		310/49.32	13
		310/49.32	25
		310/49.33	6
		310/49.33	19
		310/49.34	28
		310/49.35	7
		310/49.36	12
		310/49.37	48
		310/49.39	2
		310/49.41	3
		310/49.42	18
		310/49.43	24
		310/49.44	3
		310/49.44	4
		310/49.45	1
		310/49.45	12
		310/49.46	3
		310/49.46	6
		310/49.47	7
		310/49.48	6
		310/49.49	7
		310/49.51	4
		310/49.52	2
		310/49.53	4

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/49.53	11
		310/49.54	2
		310/49.54	8
		310/49.55	1
		310/49.55	10
		310/156.03	1
		310/216.021	1
		310/216.026	1
		310/216.033	1
		310/216.036	1
		310/216.039	1
		310/216.066	1
		310/216.075	1
		310/216.092	2
		310/216.097	2
		310/216.111	2
		310/216.112	2
		310/216.124	1
		310/216.131	1
310/216	352	310/90	1
		310/211	1
		310/257	2
		310/400	1
		310/401	1
		310/429	1
		310/12.27	1
		310/254.1	1
		310/254.1	4
		310/261.1	2
		310/49.11	1
		310/49.23	1
		310/156.53	1
		310/323.01	1
		310/216.001	13
		310/216.002	1
		310/216.003	1
		310/216.004	4
		310/216.004	17
		310/216.005	2
		310/216.006	5
		310/216.006	6
		310/216.007	1
		310/216.007	3

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.008	3
		310/216.008	14
		310/216.009	2
		310/216.011	3
		310/216.011	6
		310/216.012	3
		310/216.012	7
		310/216.013	1
		310/216.013	3
		310/216.014	1
		310/216.014	2
		310/216.015	1
		310/216.016	4
		310/216.017	1
		310/216.017	4
		310/216.018	1
		310/216.019	2
		310/216.019	3
		310/216.023	7
		310/216.027	1
		310/216.028	1
		310/216.028	2
		310/216.029	2
		310/216.031	2
		310/216.034	2
		310/216.035	1
		310/216.036	1
		310/216.041	2
		310/216.041	4
		310/216.042	2
		310/216.043	4
		310/216.043	7
		310/216.044	2
		310/216.044	4
		310/216.045	5
		310/216.046	1
		310/216.047	6
		310/216.048	2
		310/216.048	6
		310/216.049	2
		310/216.055	3
		310/216.056	1
		310/216.057	2

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.059	2
		310/216.061	2
		310/216.062	1
		310/216.062	4
		310/216.063	1
		310/216.064	1
		310/216.064	2
		310/216.065	2
		310/216.065	3
		310/216.066	1
		310/216.067	1
		310/216.067	6
		310/216.069	6
		310/216.071	1
		310/216.071	4
		310/216.072	1
		310/216.072	2
		310/216.074	1
		310/216.074	7
		310/216.075	1
		310/216.076	3
		310/216.083	2
		310/216.088	1
		310/216.091	2
		310/216.091	10
		310/216.092	2
		310/216.094	3
		310/216.094	5
		310/216.095	1
		310/216.096	1
		310/216.097	1
		310/216.098	1
		310/216.102	3
		310/216.105	1
		310/216.106	3
		310/216.106	4
		310/216.107	1
		310/216.109	1
		310/216.111	1
		310/216.111	6
		310/216.112	1
		310/216.112	3
		310/216.113	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.113	8
		310/216.114	2
		310/216.114	4
		310/216.115	1
		310/216.115	3
		310/216.121	2
		310/216.125	7
		310/216.126	1
		310/216.127	1
		310/216.132	1
		310/216.137	1
310/217	148	29/596	1
		310/211	1
		310/263	1
		310/400	1
		310/404	1
		310/410	1
		310/418	1
		310/418	2
		310/432	2
		310/254.1	1
		310/261.1	4
		310/216.001	5
		310/216.004	2
		310/216.004	10
		310/216.006	1
		310/216.007	1
		310/216.008	3
		310/216.009	1
		310/216.009	2
		310/216.011	1
		310/216.011	2
		310/216.013	1
		310/216.014	1
		310/216.016	2
		310/216.016	4
		310/216.017	1
		310/216.018	2
		310/216.023	1
		310/216.034	1
		310/216.039	1
		310/216.041	1
		310/216.044	2

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.045	1
		310/216.048	4
		310/216.048	8
		310/216.049	2
		310/216.051	1
		310/216.052	1
		310/216.054	1
		310/216.057	1
		310/216.058	1
		310/216.058	3
		310/216.061	2
		310/216.062	2
		310/216.063	1
		310/216.065	3
		310/216.067	1
		310/216.074	1
		310/216.107	1
		310/216.113	1
		310/216.114	1
		310/216.114	6
		310/216.115	3
		310/216.116	4
		310/216.118	1
		310/216.119	2
		310/216.121	1
		310/216.123	3
		310/216.124	3
		310/216.127	4
		310/216.129	3
		310/216.131	3
		310/216.132	3
		310/216.133	3
		310/216.135	1
		310/216.136	1
		310/216.136	7
310/218	172	310/68 B	1
		310/181	1
		310/182	1
		310/208	2
		310/211	1
		310/257	1
		310/407	1
		310/423	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/429	1
		310/261.1	1
		310/154.17	1
		310/156.02	1
		310/216.004	1
		310/216.004	2
		310/216.012	1
		310/216.012	2
		310/216.015	1
		310/216.017	1
		310/216.022	1
		310/216.023	1
		310/216.024	2
		310/216.026	1
		310/216.027	1
		310/216.037	2
		310/216.057	3
		310/216.058	6
		310/216.059	4
		310/216.061	1
		310/216.062	1
		310/216.063	1
		310/216.064	3
		310/216.066	1
		310/216.068	1
		310/216.072	1
		310/216.073	1
		310/216.074	3
		310/216.074	10
		310/216.076	1
		310/216.077	1
		310/216.077	5
		310/216.078	1
		310/216.079	3
		310/216.081	3
		310/216.082	1
		310/216.082	4
		310/216.083	6
		310/216.084	2
		310/216.084	9
		310/216.085	1
		310/216.085	2
		310/216.086	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.086	7
		310/216.087	3
		310/216.088	1
		310/216.088	4
		310/216.091	4
		310/216.091	6
		310/216.092	1
		310/216.093	1
		310/216.094	4
		310/216.095	1
		310/216.095	2
		310/216.096	1
		310/216.096	4
		310/216.098	11
		310/216.099	2
		310/216.101	1
		310/216.101	2
		310/216.102	2
		310/216.102	3
		310/216.104	3
		310/216.105	2
		310/216.106	1
		310/216.112	1
		310/216.115	1
		310/216.132	1
		310/216.133	1
310/254	429	310/43	1
		310/45	1
		310/89	2
		310/90	1
		310/179	1
		310/181	1
		310/184	2
		310/194	2
		310/201	1
		310/207	1
		310/208	1
		310/215	2
		310/257	3
		310/260	1
		310/263	1
		310/270	1
		310/401	4

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/402	1
		310/402	2
		310/403	1
		310/404	3
		310/405	1
		310/406	1
		310/407	1
		310/409	4
		310/410	8
		310/411	1
		310/413	2
		310/416	2
		310/417	1
		310/418	1
		310/418	6
		310/420	1
		310/420	2
		310/424	2
		310/425	3
		310/425	8
		310/426	7
		310/427	1
		310/428	5
		310/429	1
		310/429	11
		310/430	1
		310/430	2
		310/432	1
		310/433	2
		310/254.1	2
		310/254.1	97
		310/261.1	3
		310/156.37	1
		310/156.49	1
		310/156.69	1
		310/216.001	2
		310/216.001	14
		310/216.002	2
		310/216.002	8
		310/216.003	1
		310/216.003	2
		310/216.004	1
		310/216.004	9

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.008	1
		310/216.008	4
		310/216.011	1
		310/216.015	3
		310/216.019	1
		310/216.021	4
		310/216.022	1
		310/216.023	1
		310/216.024	2
		310/216.025	2
		310/216.027	2
		310/216.028	1
		310/216.029	5
		310/216.033	5
		310/216.034	1
		310/216.036	3
		310/216.037	1
		310/216.037	11
		310/216.038	4
		310/216.039	4
		310/216.045	1
		310/216.049	1
		310/216.051	2
		310/216.054	1
		310/216.057	5
		310/216.059	2
		310/216.061	3
		310/216.062	1
		310/216.064	2
		310/216.066	3
		310/216.066	13
		310/216.067	1
		310/216.068	3
		310/216.069	3
		310/216.071	1
		310/216.071	3
		310/216.072	3
		310/216.073	1
		310/216.074	2
		310/216.074	4
		310/216.076	1
		310/216.079	4
		310/216.081	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.082	1
		310/216.083	12
		310/216.085	1
		310/216.087	1
		310/216.091	3
		310/216.092	2
		310/216.093	2
		310/216.094	3
		310/216.095	1
		310/216.096	1
		310/216.097	2
		310/216.098	3
		310/216.099	3
		310/216.101	1
		310/216.102	4
		310/216.103	3
		310/216.106	1
		310/216.107	1
		310/216.108	1
		310/216.111	2
		310/216.112	2
		310/216.114	1
		310/216.114	3
		310/216.118	2
		310/216.132	1
		310/216.137	1
310/258	265	310/52	1
		310/89	1
		310/90	1
		310/164	2
		310/208	1
		310/257	1
		310/400	4
		310/401	3
		310/402	6
		310/403	1
		310/404	1
		310/405	1
		310/406	4
		310/407	2
		310/408	2
		310/410	10
		310/411	8

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/412	1
		310/412	3
		310/413	1
		310/414	2
		310/415	4
		310/417	1
		310/418	3
		310/419	1
		310/419	3
		310/425	1
		310/426	7
		310/427	3
		310/428	1
		310/429	4
		310/430	1
		310/431	15
		310/432	13
		310/433	25
		310/254.1	2
		310/216.002	1
		310/216.004	1
		310/216.008	1
		310/216.009	2
		310/216.011	2
		310/216.015	2
		310/216.022	2
		310/216.024	1
		310/216.025	2
		310/216.026	2
		310/216.028	1
		310/216.031	2
		310/216.032	4
		310/216.033	3
		310/216.039	2
		310/216.051	1
		310/216.051	2
		310/216.052	3
		310/216.055	1
		310/216.056	1
		310/216.057	2
		310/216.059	1
		310/216.065	1
		310/216.066	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.066	2
		310/216.067	1
		310/216.068	2
		310/216.069	1
		310/216.071	1
		310/216.074	1
		310/216.079	1
		310/216.083	3
		310/216.087	1
		310/216.088	1
		310/216.089	1
		310/216.091	3
		310/216.093	1
		310/216.099	1
		310/216.101	1
		310/216.102	2
		310/216.108	2
		310/216.109	2
		310/216.113	1
		310/216.114	1
		310/216.114	2
		310/216.118	7
		310/216.119	1
		310/216.124	8
		310/216.125	5
		310/216.126	3
		310/216.127	1
		310/216.127	2
		310/216.129	1
		310/216.131	7
		310/216.132	1
		310/216.133	1
		310/216.134	6
		310/216.135	1
		310/216.136	3
		310/216.137	1
310/259	102	310/86	1
		310/260	2
		310/401	1
		310/402	3
		310/411	1
		310/413	1
		310/414	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/415	1
		310/418	1
		310/419	1
		310/429	1
		310/254.1	3
		310/216.001	1
		310/216.002	2
		310/216.003	1
		310/216.004	1
		310/216.007	1
		310/216.008	1
		310/216.009	1
		310/216.011	3
		310/216.015	1
		310/216.016	1
		310/216.018	1
		310/216.022	2
		310/216.023	2
		310/216.025	1
		310/216.028	2
		310/216.031	2
		310/216.033	3
		310/216.035	2
		310/216.037	2
		310/216.041	1
		310/216.042	1
		310/216.043	2
		310/216.048	1
		310/216.049	1
		310/216.052	1
		310/216.054	3
		310/216.055	1
		310/216.056	1
		310/216.057	1
		310/216.059	2
		310/216.064	1
		310/216.065	3
		310/216.066	1
		310/216.071	1
		310/216.072	1
		310/216.073	1
		310/216.076	1
		310/216.078	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.079	1
		310/216.086	2
		310/216.089	1
		310/216.092	1
		310/216.094	1
		310/216.097	1
		310/216.101	1
		310/216.102	5
		310/216.104	1
		310/216.105	2
		310/216.106	2
		310/216.111	1
		310/216.114	2
		310/216.121	1
		310/216.127	1
		310/216.129	1
		310/216.131	1
		310/216.132	1
		310/216.133	1
310/261	236	310/51	7
		310/67 R	1
		310/68 B	1
		310/71	1
		310/90	1
		310/114	1
		310/145	1
		310/179	1
		310/194	1
		310/195	1
		310/208	2
		310/211	1
		310/215	1
		310/232	1
		310/233	1
		310/263	1
		310/270	4
		310/417	2
		310/418	2
		310/420	1
		310/420	3
		310/421	4
		310/422	8
		310/423	2

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/424	1
		310/424	3
		310/425	1
		310/429	2
		310/12.18	1
		310/254.1	5
		310/261.1	5
		310/261.1	61
		310/156.08	1
		310/156.12	1
		310/156.19	1
		310/156.21	1
		310/156.26	1
		310/156.27	1
		310/156.38	1
		310/156.53	2
		310/156.61	1
		310/156.79	1
		310/216.001	1
		310/216.001	2
		310/216.002	7
		310/216.003	1
		310/216.004	2
		310/216.008	1
		310/216.011	1
		310/216.011	2
		310/216.013	2
		310/216.015	2
		310/216.016	1
		310/216.017	2
		310/216.029	1
		310/216.038	1
		310/216.053	1
		310/216.053	2
		310/216.062	1
		310/216.065	1
		310/216.066	1
		310/216.067	2
		310/216.069	2
		310/216.071	2
		310/216.074	2
		310/216.075	4
		310/216.082	1

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DISPOSITION CLASSIFICATION(S) OF PATENTS
FROM ABOLISHED SUBCLASSES REPORT

Generated by Data Control Division

Source Classification	Number of ORs	New Classification	Number of ORs
		310/216.083	1
		310/216.092	2
		310/216.104	1
		310/216.107	5
		310/216.109	2
		310/216.113	1
		310/216.114	1
		310/216.115	1
		310/216.115	2
		310/216.116	1
		310/216.116	6
		310/216.119	1
		310/216.121	8
		310/216.122	5
		310/216.123	7
		310/216.124	1
		310/216.137	1

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USPC Class	USPC Subclass	IPC Subclass	IPC Notation
310	12.01-12.15	H02k	41/02
	12.16-12.17	H02k	41/03
	12.18-12.31	H02k	41/02
	49.01	G04C	13/11
		H02K	37/00
	49.02-49.26	G04C	13/11
		H02K	37/00
	49.27	G04C	13/11
		H02K	37/00
		H02K	37/10
	49.28-49.29	G04C	13/11
		H02K	37/00
	49.31-49.41	G04C	13/11
		H02K	37/00
		H02K	37/10
	49.42-49.44	G04C	13/11
		H02K	37/00
	49.45-49.48	G04C	13/11
`		H02K	37/02
	49.49-49.55	G04C	13/11
		H02K	37/00
	216.001	H02K	1/00
	216.002-216.005	H02K	1/06
	216.006	H02K	1/02
		H02K	1/06
	216.007-216.013	H02K	1/06
	216.014	H02K	1/06
		H02K	1/20
		H02K	1/32
	216.015-216.016	H02K	1/06
	216.017	H02K	1/02
		H02K	1/06
	216.018	H02K	1/06
	216.019	H02K	1/06
		H02K	1/16
		H02K	1/26
	216.021-216.052	H02K	1/06
	216.053	H02K	1/06
		H02K	1/30
	216.054-216.055	H02K	1/06
	216.056	H02K	1/06
		H02K	1/20
		H02K	1/32
	216.057-216.066	H02K	1/06
	216.067	H02K	1/02
		H02K	1/06
	216.068	H02K	1/06

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USPC		IPC	
Class	Subclass	Subclass	Notation
310	216.069-216.073	H02K	1/06
		H02K	1/16
		H02K	1/26
	216.074-216.112	H02K	1/06
	216.113	H02K	1/06
		H02K	1/18
		H02K	1/28
	216.114	H02K	1/06
	216.115	H02K	1/04
		H02K	1/06
	216.116-216.119	H02K	1/06
	216.121-216.123	H02K	1/06
		H02K	1/28
	216.124-216.127	H02K	1/06
	216.128	H02K	1/04
		H02K	1/06
	216.129-216.137	H02K	1/06
	254.1	H02K	1/12
	261.1	H02K	1/22
	400	H02K	5/00
		H02K	5/15
	401	H02K	5/00
		H02K	5/15
		H02K	5/16
	402-405	H02K	5/00
		H02K	5/15
		H02K	1/18
	406-410	H02K	5/00
		H02K	5/15
	411-415	H02K	5/00
		H02K	5/15
		H02K	1/18
	416	H02K	5/00
		H02K	5/15
	417	H02K	5/00
		H02K	5/15
		H02K	5/20
	418	H02K	5/00
	419	H02K	5/26
	420-424	H02K	5/00
		H02K	1/30
	425	H02K	5/16
	426-430	H02K	5/00
	431-433	H02K	5/00
		H02K	1/18

D. CHANGES TO THE DEFINITIONS

CLASS 29 - METAL WORKING

Definitions Modified:

Subclass 894: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

301, Electrical Generator or Motor Structure, subclass 261.1 for rotor structure.

D. CHANGES TO THE DEFINITIONS

CLASS 68 - TEXTILES: FLUID TREATING APPARATUS

Definitions Modified:

Subclass 12.06: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

301, Electrical Generator or Motor Structure, subclass 261.1 for miscellaneous rotor structures including those having balancing means.

D. CHANGES TO THE DEFINITIONS

CLASS 73- MEASURING AND TESTING

Definitions Modified:

Subclass 66: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 261.1 for miscellaneous rotor structures including those having balancing means.

D. CHANGES TO THE DEFINITIONS

CLASS 74- MACHINE ELEMENT OR MECHANISM

Definitions Modified:

Subclass 5: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 261.1 for rotors, per se.

Subclass 591: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 261.1 for counterbalanced flywheels and rotors.

Subclass 604: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 261.1 for vibration damping means for flywheels and rotors.

D. CHANGES TO THE DEFINITIONS

CLASS 104- RAILWAYS

Definitions Modified:

Subclass 290: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear motor, per se. Patents disclosing a linear motor for use with a railway system and positively claiming either a vehicle carrying one of the linear motor elements or track structure in addition to a motor element are properly classified in Class 104.

D. CHANGES TO THE DEFINITIONS

CLASS 123- INTERNAL-COMBUSTION ENGINES

Definitions Modified:

Subclass 339.26: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 49.01-49.55 for rotary step-by-step motor structure.

D. CHANGES TO THE DEFINITIONS

CLASS 124- MECHANICAL GUNS AND PROJECTORS

Definitions Modified:

Subclass 3: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear electric motor, per se, even though disclosed for an electromagnetic gun.

D. CHANGES TO THE DEFINITIONS

CLASS 191- ELECTRICITY: TRANSMISSION TO VEHICLES

Definitions Modified:

Subclass 10: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear dynamoelectric machine, particularly subclass 13, where both the fixed and movable elements of the machine are provided with an electrical winding.

D. CHANGES TO THE DEFINITIONS

CLASS 242- WINDING, TENSIONING, OR GUIDING

Definitions Modified:

Class Definition: Under SECTION V - REFERENCES TO OTHER CLASSES, SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310,Electrical Generator or Motor Structure, particularly subclasses 179, 254.1 and 261.1 for a winding structure on or in a motor or generator component.

Subclass 432: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, appropriate subclass for a motor winding or core structure.

Subclass 433: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, appropriate subclass for a motor winding or core structure.

D. CHANGES TO THE DEFINITIONS

CLASS 258- RAILWAY MAIL DELIVERY

Definitions Modified:

Subclass 4: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear electrical motor, per se.

D. CHANGES TO THE DEFINITIONS

CLASS 310- ELECTRICAL GENERATOR OR MOTOR STRUCTURE

Definitions Abolished:

Subclass(es)

12, 42, 49R, 216-218, 254, 258, 259, 261

Definitions Modified:

Subclass 13: In the subclass definition

Delete:

The entire definition and search notes.

Insert:

13 Fixed and movable wound element type:
This subclass is indented under subclass 12.01. Subject matter in which both the fixed and the movable elements of the dynamoelectric device are provided with current carrying conductors or inductor.

SEE OR SEARCH CLASS:

104, Railways, subclass 292 for a railway vehicle and track claimed in combination with a linear motor having fixed and movable wound elements on the track and vehicle, respectively.

Subclass 14: In the subclass definition

Delete:

The entire definition and search notes.

Insert:

14 Solenoid and core type:
This subclass is indented under subclass 12.01. Subject matter in which the fixed and the movable elements of the dynamoelectric device are concentric and consist of a hollow winding and a plunger type armature passing thereunto.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH CLASS:

124, Mechanical Guns and Projectors, subclass 3 for electromagnetic guns and projectors.

335, Electricity: Magnetically Operated Switches, Magnets, and Electromagnets, subclasses 255-264 for similar subject matter.

Subclass 15: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 12.

Insert:

12.01-12.33, for straight-line motion that is unidirectional and does not produce to-and fro motion.

Subclass 16: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 52+.

Insert:

52-65, for cooling of a rotary electric machine, and the search notes therein, for cooling provided in subcombination elements of an electric motor or generator.

Subclass 52: Under the subclass definition:

Insert:

(1) Note. This and indented subclasses are generally directed to the cooling of the entire machine, and is also the residual area for cooling not otherwise provided for. For cooling subject matter specific to a particular subcombination element of a machine, the original classification should be placed into a subclass providing for the subcombination element, as set forth in the following search notes.

Under: SEE OR SEARCH THIS CLASS SUBCLASS:

D. CHANGES TO THE DEFINITIONS

Delete:

The search reference to subclass 16.

Insert:

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear motor or generator.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

216.056, for a cooling fin on a laminated core of a rotary dynamoelectric machine.

216.014, for a cooling fin on a core having circumferentially offset laminations in a rotary dynamoelectric machine

227, for current collector cooling in a rotary dynamoelectric machine.

417, for a rotary dynamoelectric machine end shield having ventilation holes.

Subclass 83: Under the subclass definition

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.47-49.49, for a rotary stepping motor in which gearing defines the stepping effect of the motor.

Subclass 89: Under the subclass definition

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.33, for an enclosure for a linear electric motor.

Subclass 152: Under the subclass definition

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.28, for a rotary disk-type stepping motor having a permanent magnet in the stator.

49.32, for a rotary stepping motor having a permanent magnet motor with an axially directed flux path.

D. CHANGES TO THE DEFINITIONS

49.36, for a rotary stepping motor having a permanent magnet in a pole tooth.

49.46, for a rotary stepping motor of the reluctance type having a stator with a winding and a permanent magnet.

49.53, for a rotary stepping motor in which a permanent magnet defines the stepping effect.

Subclass 214: Under the subclass definition

Insert:

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.099-216.103, for a magnetic element for bridging adjacent pole ends.

Subclass 227: Under SEE OR SEARCH THIS CLASS, SUBCLASS:

Delete:

The reference to subclass 52+.

Insert:

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear dynamoelectric machine.

52-65, for cooling of a rotary dynamoelectric machine.

216.014, for a cooling fin on a core having circumferentially offset laminations in a rotary dynamoelectric machine.

216.056, for a cooling fin on a laminated core of a rotary dynamoelectric machine.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

417, **f**or a rotary dynamoelectric machine end shield having ventilation holes.

Subclass 255: In the subclass definition

Delete:

This subclass is indented under subclass 254.

D. CHANGES TO THE DEFINITIONS

Insert:

This subclass is indented under subclass 254.1.

Subclass 256: In the subclass definition

Delete:

This subclass is indented under subclass 254.

Insert:

This subclass is indented under subclass 254.1.

Subclass 257: In the subclass definition

Delete:

This subclass is indented under subclass 254.

Insert:

This subclass is indented under subclass 254.1.

Subclass 260: In the subclass definition

Delete:

This subclass is indented under subclass 258.

Insert:

This subclass is indented under subclass 254.1.

Subclass 262: In the subclass definition

D. CHANGES TO THE DEFINITIONS

Delete:

This subclass is indented under subclass 261.

Insert:

This subclass is indented under subclass 261.1.

Subclass 263: In the subclass definition

Delete:

This subclass is indented under subclass 261.

Insert:

This subclass is indented under subclass 261.1.

Subclass 264: In the subclass definition.

Delete:

This subclass is indented under subclass 261.

Insert:

This subclass is indented under subclass 261.1.

Subclass 270: In the subclass definition.

Delete:

This subclass is indented under subclass 261.

Insert:

This subclass is indented under subclass 261.1.

D. CHANGES TO THE DEFINITIONS

Subclass 271: In the subclass definition

Delete:

This subclass is indented under subclass 261

Insert:

This subclass is indented under subclass 261.1

Definitions Established:

12.01 Linear:
This subclass is indented under subclass 10. Subject matter in which a dynamoelectric device uses the electromagnetic effect to move or reposition a movable element in substantially straight-line motion with respect to a fixed element, i.e., stator, or to convert straight-line motion of the movable element into electrical energy.

(1) Note. The movable element is analogous to the rotor of a rotary machine, and is sometimes improperly referred to as a rotor.

(2) Note. Substantially straight-line motion may include travel in a path that deviates from a straight line, so long as the principle of operation is the same as for purely linear travel. For example, using a dynamoelectric effect to propel a toy train along a track arranged in an overall arcuate or circular path may be appropriate for this and indented subclasses if the type of motive force utilized at each location along the path is identical to that used for straight-line motion provided for in these subclasses.

SEE OR SEARCH THIS CLASS, SUBCLASS:

15-24, for a dynamoelectric device in which a movable element moves in a straight line and reciprocates back and forth.

300, for a non-dynamoelectric linear motor or generator.

SEE OR SEARCH CLASS:

104, Railways, subclass 282 for a railway vehicle and track having a linear motor which propels and suspends the vehicle, and subclasses 290-294 for a railway vehicle and track claimed in combination with a linear motor.

124, Mechanical Guns and Projectors, subclass 3 for an electromagnetic projectile propelling means.

318, Electricity: Motive Power Systems, subclasses 38, 135, and 687 for a linear movement motor in combination with a system of electrical supply and/or control.

D. CHANGES TO THE DEFINITIONS

12.02 Having structure to facilitate assembly:
This subclass is indented under subclass 12.01. Subject matter wherein an element of a linear dynamoelectric device includes a particular feature that promotes ease, speed, or economy in the manufacture of the device.

(1) Note. Significant structural detail of a linear motor or generator must be recited for placement in this subclass. A nominal recitation of a motor part i.e., armature, stator, winding, shaft, etc., is not considered to be significant structure for placement in this subclass.

SEE OR SEARCH CLASS:

29, Metal Working, subclasses 596-598 for a method of dynamoelectric machine manufacture or assembly.

12.03 Micromachine (e.g., MEMS device, nanotechnology):
This subclass is indented under subclass 12.01. Subject matter including a linear dynamoelectric device having extremely small overall dimensions.

(1) Note. Although the term “extremely small” is a relative term, no specific size limitation is attached to this definition. Interpretation of this term should be understood by the use of terms such as micro-, nano-, MEMS, miniature, etc., used in the description of the machine. Similarly, construction of a machine by, for example, integrated circuit technology on a semiconductor wafer, should be evidence for proper placement in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

40, for rotary dynamoelectric device.

12.04 Specific use device:
This subclass is indented under subclass 12.01. Subject matter including a linear dynamoelectric device, per se, having structure specifically adapted to perform a particular function or for a particular application.

(1) Note. This subclass provides for a linear dynamoelectric device intended to be used with a specific power supply.

12.05 X-Y positioner:
This subclass is indented under subclass 12.04. Subject matter including a linear dynamoelectric motor or motor combination, per se, that simultaneously or sequentially moves an object in mutually orthogonal directions.

12.06 Precision type (e.g., for integrated circuit manufacture):
This subclass is indented under subclass 12.05. Subject matter including an X-Y positioner having the ability to move an object with a high degree of accuracy or resolution, especially for minute movements.

D. CHANGES TO THE DEFINITIONS

(1) Note. This subject matter is commonly used where exacting movement is required, such as, for example, in integrated circuit manufacture or similar high precision tasks.

12.07 Projector (e.g., rail gun):
This subclass is indented under subclass 12.04. Subject matter that includes a linear dynamoelectric motor, per se, structurally arranged for launching a projectile.

SEE OR SEARCH CLASS:

124, Mechanical Guns and Projectors, subclass 54 for a projector.

12.08 Disk drive head motor:
This subclass is indented under subclass 12.04. Subject matter that includes a linear dynamoelectric motor, per se, having a structural detail particularly suited to reposition the head of a disk drive.

(1) Note. This subclass is limited to a linear motor subcombination, per se. See search note below for placement of a disk drive motor where a structural detail of a disk drive element other than a motor is recited.

SEE OR SEARCH CLASS:

360, Dynamic Magnetic Information Storage or Retrieval, for a magnetic disk drive, especially subclasses 266.2-267.8 for a magnetic disk drive with linear positioning of the head.

12.09 Rail vehicle (e.g., train, trolley):
This subclass is indented under subclass 12.04. Subject matter including a linear dynamoelectric motor, per se, having a structural detail particularly suited to propel a device or conveyance employed for carrying persons or objects while the device or conveyance is supported for rolling or sliding movement along a track formed of a horizontally extending bar or bars.

(1) Note. This subclass is limited to the linear motor subcombination, per se, of the vehicle. See search note for such a motor combined with other vehicle structure.

SEE OR SEARCH CLASS:

104, Railways, subclass 282 for a railway vehicle and track having a linear motor which propels and suspends the vehicle, and subclasses 290-294 for a railway vehicle and track claimed in combination with a linear motor.

12.11 Conveyor or elevator motor:
This subclass is indented under subclass 12.04. Subject matter including a linear dynamoelectric motor, per se, having a structural detail particularly suited to linearly drive a hoisting machine or a mechanical apparatus for moving articles or bulk material from one place to another place.

D. CHANGES TO THE DEFINITIONS

12.12 Generator:
This subclass is indented under subclass 12.04. Subject matter including a linear dynamoelectric device that converts linear mechanical movement of the movable element into electrical energy.

12.13 Plural dynamoelectric machines (e.g., motors, generators):
This subclass is indented under subclass 12.01. Subject matter including the combination of a linear motor or generator with another dynamoelectric machine.

(1) Note. The other dynamoelectric machine may be either another linear machine, or other type of dynamoelectric machine (e.g., reciprocating, oscillating, rotary, etc.)

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.05, for a plural motor X-Y positioner.

300- 371, for a non-dynamoelectric device.

12.14 Motor having both linear and rotary movement:
This subclass is indented under subclass 12.01. Subject matter including a linear motor having a movable element being driven in a linear path and also turned about its axis.

(1) Note. The linear and rotary movement may involve one or more movable elements.

12.15 Plural stators or movable elements:
This subclass is indented under subclass 12.01. Subject matter including a linear dynamoelectric motor having more than one stator or more than one movable element.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.09, for a linear motor for a train.

12.16 Voice coil type:
This subclass is indented under subclass 12.01. Subject matter in which the movable element comprises of a winding that is linearly movable by passing a current through the winding while the winding is within a magnetic field.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.08, for a flat linear motor specifically for use in a disk drive.

SEE OR SEARCH CLASS:

360, Dynamic Magnetic Information Storage or Retrieval, for magnetic disk drive structure, especially subclass 264.7 for a disk drive with a voice coil head positioner.

D. CHANGES TO THE DEFINITIONS

381, Electrical Audio Signal Processing Systems and Devices, for loudspeaker structure, especially subclass 400 for a loudspeaker having a movable voice coil drive.

12.17 Stepping or linear pulse type:
This subclass is indented under subclass 12.01. Subject matter including a linear dynamoelectric device structurally arranged to linearly move its movable element between two or more incremental positions of rest or equilibrium, and stop at a selected position of rest or equilibrium until an adjustment is made which causes movement to another incremental position of rest, i.e., stepping; or a linear dynamoelectric device that incrementally moves its movable element by applying a burst of magnetic energy at successive incremental positions along the linear path that forces the movable element into alignment with the magnetic field.

(1) Note. While a linear pulse motor may be constructed to stop or park at incremental positions, and thereby be a stepping motor, there is no such requirement that it do so. It may be moved steadily between successive incremental positions without parking until its ultimate destination is reached.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.05, for an X-Y positioner

12.08, for a disk drive head motor

49.01-49.55, for a rotary stepping motor.

12.18 Synchronous type (e.g., variable reluctance):
This subclass is indented under subclass 12.01. Subject matter wherein the speed of the movable element and either the frequency of the traveling magnet field used to drive the movable element in a motor, or the frequency of electricity generated from motion of the movable element in a generator, are directly related.

SEE OR SEARCH THIS CLASS, SUBCLASS:

309-311, for an electrostatically driven linear motor.

12.19 Having structure to facilitate control (e.g., position detector):
This subclass is indented under subclass 12.01. Subject matter including a linear dynamoelectric device with an included element provided as a subcombination of a system for regulating or monitoring the operation of the device.

(1) Note. This subclass provides especially for structure that may be a part of a control system, but as subcombination structure, is insufficient for placement in control systems. For example, a Hall effect sensor may be structurally included as a position detector, but in itself, does not have sufficient associated circuitry to be considered a control system or detection circuit.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH CLASS:

318, Electricity: Motive Power Systems, subclass 135 for electric control of a linear motor.

322, Electricity: Single Generator Systems, subclasses 44-98 for control of a single generator.

324, Electricity: Measuring and Testing, subclass 772 for the testing of an assembled motor or generator not elsewhere classifiable.

12.21 Coil structure:
This subclass is indented under subclass12.01. Subject matter having significant physical detail of a wound conductor.

(1) Note. A coil connection, e.g., terminal, is provided for in this subclass.

(2) Note. This subclass provides for a superconductive coil.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.24, for a nominal coil used as an element of a magnet in a linear device.

12.22 Shape or spacing (e.g., multiple phase winding):
This subclass is indented under subclass 12.21. Subject matter including a coil having a significant spatial form or contour, or plural coils or coil sections having a significant geometric orientation with respect to one another.

(1) Note. The spacing of coils or coil sections may be defined by their positions as defined by pole structure. However, significant coil structure or spacing must be recited for proper placement in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.24, for magnet or pole structure having only nominally recited coil structure or spacing.

12.23 Coating:
This subclass is indented under subclass 12.21. Subject matter including a coil having an applied cover layer on a winding conductor or overall winding.

(1) Note. A coating is commonly used to, for example, insulate, encapsulate, protect, or adhere a coil to a core.

12.24 Magnet or pole structure:
This subclass is indented under subclass 11. Subject matter including significant detail of means for creating a magnetic field, or a low reluctance means to concentrate, direct or orient a magnetic field (i.e., pole).

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.21, for detailed structure of a coil or winding for creating an electromagnetic field in a linear dynamoelectric machine.

40, for details of a magnet or pole structure in a rotary dynamoelectric machine.

12.25 Size, spacing or orientation (e.g., tilted):
This subclass is indented under subclass 12.24. Subject matter including a magnet or pole having a specific dimension, a specified distance between one another, or a specified angular position with respect to the axis of movement of the movable element.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.24, for a combination of a magnet and pole structure reciting a significant portion of a flux path circuit.

12.26 Shape:
This subclass is indented under subclass 12.24. Subject matter including a magnet or pole having a particular spatial form or contour.

12.27 Mechanical element:
This subclass is indented under subclass12.01. Subject matter for a mechanical subcombination of a linear dynamoelectric device unprovided for elsewhere.

12.28 Commutation:
This subclass is indented under subclass 12.27. Subject matter including a slidable connection between a power supply and a winding.

12.29 Cooling:
This subclass is indented under subclass 12.27. Subject matter including means for transferring or removing heat from a linear dynamoelectric device or one of its components.

SEE OR SEARCH THIS CLASS, SUBCLASS:

16, for cooling of a reciprocating motor or generator.

52-65, for cooling of a rotary dynamoelectric machine.

216.014, for a cooling fin on a core having circumferentially offset laminations in a rotary dynamoelectric machine.

216.056, for a cooling fin on a laminated core of a rotary dynamoelectric machine.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

227, for current collector cooling in a rotary dynamoelectric machine.

417, for a rotary dynamoelectric machine end shield having ventilation holes.

D. CHANGES TO THE DEFINITIONS

12.31 Support for movable element (e.g., bearing):
This subclass is indented under subclass 12.27. Subject matter including means for facilitating proper operational positioning or spatial geometric relationship between a stator and movable element.

(1) Note. Included in this subclass are, for example, particular bearing arrangements, including mechanical bearings, fluid bearings and magnetic bearings.

12.32 Connection to load:
This subclass is indented under subclass 12.27. Subject matter including particular means for attaching a movable element of a linear dynamoelectric device to a device that is to be moved or repositioned by the device.

12.33 Enclosure:
This subclass is indented under subclass 12.27. Subject matter including a significant detail of a housing for a linear dynamoelectric device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

89, for a housing for a rotary dynamoelectric machine.

49.01 Stepping:
This subclass is indented under subclass 46. Subject matter in which the relatively movable elements are rotated in increments of less than 360 degrees with respect to one another between one position of rest to another position of rest, and stopping at each incremental position of rest until an adjustment is made which causes rotation to another position of rest.

(1) Note. For this and indented subclasses, where the relatively movable elements include a fixed or stationary element and a movable element that rotates with respect to the fixed element, the fixed element will be referred to as a “stator” and the rotating element as a “rotor”, with the rotor having a rotary axis about which the rotor rotates.

(2) Note. This subclass includes, for example, a magnetic motor in the nature of servomotor or follow-up device.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.17, for a linear stepping motor.

49.02 Having a coil axially concentric to rotor axis (e.g., toroid coil):
This subclass is indented under subclass 49.01. Subject matter including an electrically conductive winding having a generally annular or ring shape periphery, wherein the geometric center of said periphery is located substantially on the rotary axis of a rotor.

(1) Note. The axially concentric coil is commonly mounted on a stator core of a motor surrounding the axis of the rotor. However, the coil does not have to

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actually surround the rotor structure, per se, for placement in this subclass. It need only surround the longitudinal axis of the rotor and be axially concentric therewith.

49.03 With bias magnet to position rotor (e.g., parking magnet, auxiliary flux):
This subclass is indented under subclass 49.02. Subject matter including a means for causing a magnet field to help restrain or pull one of the relatively movable elements into a position of rest.

(1) Note. A bias magnet is commonly used to "park" or secure a rotor at an incremental step until an adjustment is made to cause the rotor to move to another incremental position of rest. Such position of rest is commonly designed to enable the restart of a motor. A bias magnet is also commonly used as an additional means of providing magnetic flux along with the primary coil.

49.04 Bias magnet positioned between two axially concentric coils:
This subclass is indented under subclass 49.03. Subject matter having two axially concentric windings, and a bias magnet structurally arranged between the two windings.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.06, for a rotary stepper motor having plural axially concentric coils, each coil positioned axially adjacent to a rotor.

49.07, for a rotary stepper motor having an axially concentric coil adjacent to each axial end of a rotor.

49.19, for a rotary stepper motor having plural axially concentric coils.

49.05 Axially adjacent to rotor end:
This subclass is indented under subclass 49.02. Subject matter including an axially concentric coil structurally arranged to surround a rotor's axis next to an axial end of the rotor without surrounding the rotor structure, per se.

SEE OR SEARCH THIS CLASS, SUBCLASS:

154.05 and 154.06, for an axial air gap motor or generator with a permanent magnet on the stator.

156.32-156.37, for an axial air gap motor or generator with a permanent magnet on the rotor.

49.06 Plural coil and rotor combinations:
This subclass is indented under subclass 49.05. Subject matter including more than one axially concentric coil and more than one rotor, wherein each coil is positioned axially adjacent to an axial end of a respective rotor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.07, for a stepper motor with an axially concentric coil positioned adjacent to both axial ends of a rotor.

D. CHANGES TO THE DEFINITIONS

156.36-156.37, for an axial air gap motor or generator with multiple stators and a permanent magnet rotor.

49.07 Coil axially adjacent to each end of a rotor:
This subclass is indented under subclass 49.05. Subject matter including an axially concentric coil structurally arranged to surround a rotor's axis next to each axial end of the rotor without surrounding the rotor structure, per se.

SEE OR SEARCH THIS CLASS, SUBCLASS:

156.35, for an axial air gap motor or generator with two stators axially adjacent a permanent magnet rotor.

49.08 Having poles extending to opposite radial sides of rotor:
This subclass is indented under subclass 49.02. Subject matter including a pair of members of ferromagnetic material, each having a first end positioned adjacent to, respectively, opposite north and south magnetic field ends of an axially concentric coil, wherein each ferromagnetic member has a second end opposite its first end, each ferromagnetic member providing a low-reluctance magnetic flux path between its first and second ends, the second ends (i.e., poles) being respectively positioned on opposite sides of the rotor axis adjacent a radial face of the rotor, whereby magnetic flux is directed perpendicular to the rotary axis.

(1) Note. The north and south magnetic ends of the coil can be provided by a plurality of coils in a magnetic series circuit, so long as the poles are arranged to provide flux from opposite magnetic ends of the combined coils.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.09, for a rotary stepping motor where poles extend to opposite axial ends of the rotor.

49.09 Having poles extending to opposite axial ends of rotor:
This subclass is indented under subclass 49.02. Subject matter including a pair of members of ferromagnetic material, each having a first end positioned adjacent to, respectively, opposite north and south magnetic field ends of an axially concentric coil, wherein each ferromagnetic member has a second end opposite its first end, each ferromagnetic member providing a low-reluctance magnetic flux path between its first and second ends, the second ends (i.e., poles) being respectively positioned on opposite axial ends of the rotor axis adjacent an axial end face of the rotor, whereby magnetic flux is directed generally along or parallel to the rotary axis.

(1) Note. Commonly, the rotor is positioned radially inside the toroid coil, with poles of the coil extending radially inward and over the axial ends of the rotor.

(2) Note. The north and south magnetic ends of the coil can be provided by a plurality of coils in a magnetic series circuit, so long as the poles are arranged to provide flux from opposite magnetic ends of the combined coils.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.08, for a rotary stepping motor where poles extend to opposite radial sides of the rotor.

49.11 Having particular flux plate or yoke:
This subclass is indented under subclass 49.02. Subject matter including specific structural detail of a low-reluctance member positioned adjacent to a magnetic pole face at an axial end of the axially concentric coil, i.e., "flux plate"; or a low-reluctance member structurally arranged to provide a magnetic flux path from one magnetic pole of the coil to the other pole, i.e., "yoke".

(1) Note. A flux plate may serve as a magnetic pole, or merely provide a flux path from the coil to a separate pole attached to the flux plate. It is commonly a relatively thin, flat plate or disc. A yoke commonly extends circumferentially around a coil's periphery to function as a flux path between flux plates.

49.12 With alignment mechanism:
This subclass is indented under subclass 49.11. Subject matter including means for structurally orienting a flux plate or yoke in a particular position with respect to the axially concentric coil.

(1) Note. Alignment mechanisms commonly include structural features such as notches, protrusions, or markings, to align the flux plates or yoke into a preset position.

49.13 Having coil bobbin:
This subclass is indented under subclass 49.02. Subject matter including specific detail of a support or spool about which the axially concentric coil is wound.

SEE OR SEARCH THIS CLASS, SUBCLASS:

194, for a motor or generator spool or coil support, per se.

49.14 Integral with pole or flux plate:
This subclass is indented under subclass 49.13. Subject matter wherein the bobbin is structurally combined with a flux plate or pole piece in a unitary or monolithic structure.

49.15 Having interfitting poles:
This subclass is indented under subclass 49.02. Subject matter including a plurality of poles extending from the north magnetic pole of the coil and a plurality of poles extending from the south magnetic pole of the coil, wherein the plurality of poles are spatially arranged in such a way as to alternate between a pole of one magnetic polarity of the coil and a pole of the other magnetic polarity of the coil.

SEE OR SEARCH THIS CLASS, SUBCLASS:

257, for an interfitting or claw-tooth stator.

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263, for an interfitting or claw-tooth rotor.

49.16 Having a particular dimension:
This subclass is indented under subclass 49.15. Subject matter wherein a specific size or spatial extent of one of the interfitting poles is recited.

49.17 Having a particular shape:
This subclass is indented under subclass 49.15. Subject matter wherein a specific spatial form or contour of one of the interfitting poles is recited.

49.18 With rotary to linear conversion:
This subclass is indented under subclass 49.02. Subject matter including means to change rotary stepping motion about an axis to motion along a line.

(1) Note. Such conversion may be performed by gearing, such as a threaded portion or worm gear inside the rotor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.17, for a linear stepping motor.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclass 425 for worm gearing.

49.19 Having plural axially concentric coils:
This subclass is indented under subclass 49.02. Subject matter including more than one axially concentric coil.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.04, for a rotary stepping motor having two axially concentric coils with a bias magnet positioned between the coils.

49.06, for a rotary stepping motor having a plurality of axially concentric coil and rotor combinations.

49.07, for a rotary stepping motor having an axially concentric coil axially adjacent each end of a rotor.

49.21 Having a single axially concentric coil:
This subclass is indented under subclass 49.02. Subject matter including only one axially concentric coil.

49.22 Axially thin type (e.g., disk-shaped motor, planer):
This subclass is indented under subclass 49.01. Subject matter including a stepping motor wherein the length along its rotary axis is small in relation to its radial dimension.

(1) Note. An axially thin or disk-shaped stepper motor is commonly found in a timepiece such as a wristwatch, etc.

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49.23 Having a particular stator feature:
This subclass is indented under subclass 49.22. Subject matter including an axially thin stepping motor having a specific structural detail of its stationary structure or stator.

49.24 Asymmetric stator pole spacing:
This subclass is indented under subclass 49.23. Subject matter including an axially thin motor including a plurality of stator poles, wherein the plurality of poles are spaced at various or non-uniform distances from the rotor, thus defining various length air gaps; or poles that are arcuately arranged at various or non-uniform distances with respect to one another around the rotor's axis of rotation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.36, for a rotary stepping motor having a permanent magnet rotor with axially directed flux path having asymmetric poles.

49.25 Inner and outer notches:
This subclass is indented under subclass 49.23. Subject matter including an axially thin stepper motor having a stator including an indentation or groove on both the side of the stator or stator pole facing the rotor air gap (i.e., inner side), and on a side of the stator opposite to the side facing the rotor air gap (i.e. outer side).

(1) Note. The inner notch has the effect of enlarging the air gap between the rotor and the stator at the notch position. It is commonly used to, for example, reduce cogging torque applied to the rotor.

(2) Note. The outer notch has the effect of creating a magnetic saturation point at the location of the outer notch due to the concentration of flux in a smaller stator cross section, and commonly defines a boundary location between stator poles.

49.26 Stator pole having inner notch:
This subclass is indented under subclass 49.23. Subject matter including an axially thin stepper motor having a pole with an indentation or groove on the side of the pole facing the rotor.

(1) Note. The inner notch has the effect of enlarging the air gap between the rotor and the stator at the notch position. It is commonly used to, for example, reduce cogging torque applied to the rotor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.25, for an axially thin stepper motor having both inner and outer notches.

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49.27 Having integral poles:
This subclass is indented under subclass 49.26. Subject matter including a stator with an inner notch, and further having a plurality of poles that are structurally united or mechanically integrated without an air gap there between.

49.28 Permanent magnet on stator:
This subclass is indented under subclass 49.23. Subject matter including an axially thin stepping motor having a stator including a permanently magnetized portion.

49.29 Plural separate stator core sections facing rotor:
This subclass is indented under subclass 49.23. Subject matter including an axially thin stepper motor having a stator with a ferromagnetic flux concentration means (i.e., core) comprising more than one distinct segment, wherein each segment has a portion or surface (i.e. pole face) that is structurally arranged with respect to a rotor to provide an air gap between the respective pole faces and the rotor, across which magnetic flux is directed.

49.31 Two sections:
This subclass is indented under subclass 49.29. Subject matter wherein the number of plural sections comprises two sections.

49.32 Permanent magnet rotor with axially directed flux path:
This subclass is indented under subclass 49.01. Subject matter including a rotor having a permanent magnet for creating a magnetic flux field therein, wherein the magnet poles of the magnet are arranged to direct a flux path along the rotary axis of the rotor.

49.33 Having stepping function related to a particular stator winding arrangement:
This subclass is indented under subclass 49.32. Subject matter including a specifically recited structural or operational detail of an electrical conductor or plurality of electrical conductors wound on the stator for creating a magnetic field in the stator, wherein the structural or operational detail is one that defines or governs the angular extent of the steps of the motor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.33, for a stator winding arrangement in a reluctance-type stepper motor.

49.34 Having particular stator pole feature:
This subclass is indented under subclass 49.32. Subject matter including a stepping motor having an axial flux path rotor that further includes a specifically recited structural detail of a stator pole.

49.35 Shifted or skewed stator pole:
This subclass is indented under subclass 49.34. Subject matter including a stator pole wherein a line between the center of one axial end of the pole and the center of the opposite axial end of the pole is not parallel with the axis of rotation of the rotor.

(1) Note. A skewed pole is commonly interpreted as a pole with an axis of symmetry that is twisted away from the rotor axis. A shifted pole may include a

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segmented pole, where one of the segments is angularly shifted around the rotor's axis with respect to the other segment, so that the line between an axial end of one segment and the opposite axial end of the other segment is not parallel with the rotor's axis of rotation.

49.36 Magnet in pole tooth:
This subclass is indented under subclass 49.34. Subject matter including a stator pole face having at least one projection (i.e., tooth) extending from the pole's face into an air gap between the pole face and a rotor, wherein the projection comprises a permanent magnet, or includes a permanent magnet therein.

49.37 Having particular stator-pole to rotor-pole relationship:
This subclass is indented under subclass 49.32. Subject matter including a stepping motor with an axial flux path rotor that further includes a specifically recited structural detail of an interrelationship between a pole or poles on the rotor and a pole or poles on the stator.

(1) Note. Recited structural detail may include the number of poles on each of the rotor and stator, the pole number ratio, the relative position of the poles, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.44, for a reluctance type stepper motor having a particular stator pole to rotor pole relationship.

49.38 Having plural rotor cores of different lengths:
This subclass is indented under subclass 49.32. Subject matter including a permanent-magnet axial flux path rotor including more than one ferromagnetic element (i.e., core) for concentrating the magnetic flux of the permanent magnet, wherein the cores have various or non-uniform axial dimensions.

49.39 Plural rotor sections (e.g., segmented rotor):
This subclass is indented under subclass 49.32. Subject matter including a stepping motor with an axial flux path rotor having two or more distinct rotor segments, wherein each segment includes a permanent magnet.

49.41 Separated by non-magnetic spacer or air gap:
This subclass is indented under subclass 49.39. Subject matter including a stepping motor with an axial flux path rotor having at least two physically separated rotor sections with a non-ferromagnetic material arranged between the sections.

(1) Note. The non-ferromagnetic material may include air in the space between the separated rotor sections.

49.42 Having dual axial air gaps:
This subclass is indented under subclass 49.01. Subject matter including a rotary stepping motor including two air gaps between the rotor and the stator, wherein each gap extends parallel to the rotary axis of the rotor.

D. CHANGES TO THE DEFINITIONS

49.43 Reluctance type:
This subclass is indented under subclass 49.01. Subject matter wherein torque to drive a rotor is produced in the rotor by the presence of an external magnetic field that causes the rotor to move until its ferromagnetic material lines up in a minimum magnetic flux resistance (i.e., minimum reluctance) position in the magnetic flux path circuit of the external magnetic field, without requiring a separately excited or induced field in the rotor.

49.44 Having a particular stator pole to rotor pole relationship:
This subclass is indented under subclass 49.43. Subject matter including a reluctance-type stepping motor with a specifically recited structural detail of the interrelationship between poles on the rotor and poles on the stator.

(1) Note. Recited structural detail may include the number of poles on each of the rotor and stator, the pole number ratio, the relative position of the poles, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.37, for a stepper motor with a rotor axial flux path having a particular stator pole to rotor pole relationship.

49.45 Having a stepping function related to a particular stator winding arrangement:
This subclass is indented under subclass 49.43. Subject matter including a specifically recited structural or operational detail of an electrical conductor or plurality of electrical conductors wound on the stator for creating a magnetic field in the stator, wherein the structural or operational detail is one that defines or governs the angular extent of the steps of the motor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.33, for a winding arrangement in a stepper motor having a permanent magnet rotor with axial flux path.

49.46 Having stator with winding and permanent magnet:
This subclass is indented under subclass 49.43. Subject matter in which a reluctance-type of stepper motor has a stator that contains both a magnetic field coil and a permanent magnet.

49.47 Gearing defines stepping effect:
This subclass is indented under subclass 49.01. Subject matter including a stepper motor comprising a dynamoelectric machine and a mechanical mechanism having plural inter-engaging mechanical elements (i.e., gears), wherein the arcuate extent or distance of the motor's step or steps is a function of the structural inter-engaging relationship between the plural inter-engaging elements.

SEE OR SEARCH THIS CLASS, SUBCLASS:

82, for a motor or generator that utilizes a swash plate for motion conversion.

83, for a motor or generator that utilizes a gear for motion conversion.

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SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclass 640 and its indented subclasses for gearing, per se.

318, Electricity: Motive Power Systems, subclasses 12-15 for this subject matter having a significant electric control circuit.

475, Planetary Gear Transmission Systems or Components, subclasses 331-349 for planetary gearing.

49.48 Positioned in magnetic air gap:
This subclass is indented under subclass 49.47. Subject matter wherein at least one of the interengaging mechanical elements is structurally arranged in an air gap between a rotor and a stator.

49.49 Pawl and ratchet type:
This subclass is indented under subclass 49.47. Subject matter wherein the plural interengaging elements include a pivoted or sliding element (i.e. pawl) that is adapted to fall into notches or spaces between teeth or projections on another element (i.e., ratchet) so as to permit motion in only one direction.

SEE OR SEARCH CLASS:

74, Machine Element or Mechanism, subclasses 575-578 for ratchet and pawl gearing, per se.

49.51 Plural stators define stepping effect:
This subclass is indented under subclass 49.01. Subject matter including a stepper motor wherein the arcuate extent or distance of the motor's step or steps is functionally related to the structure or structural relationship of more than one stator or stator section.

49.52 Commutator defines stepping effect:
This subclass is indented under subclass 49.01. Subject matter including a stepper motor wherein the arcuate extent or distance of the motor's step or steps is functionally related to the structure or structural relationship, either with respect to each other or other elements of the motor, of a series of electrically conductive bars on the moving element of the motor that connect with windings in the movable element, and slidably engage electrically conductive brushes on the stationary element of the motor, to permit current flow between the moving and stationary elements of the motor.

49.53 Permanent magnet defines stepping effect:
This subclass is indented under subclass 49.01. Subject matter including a stepper motor wherein the arcuate extent or distance of the motor's step or steps is functionally related to the structure, shape, placement or other arrangement of a permanent magnet positioned in the motor.

D. CHANGES TO THE DEFINITIONS

49.54 Windings define stepping effect:
This subclass is indented under subclass 49.01. Subject matter including a stepper motor wherein the arcuate extent or distance of the motor's step or steps is functionally related to the structure, shape, placement or other arrangement of a winding or windings in the motor.

SEE OR SEARCH THIS CLASS, SUBCLASS:

49.33, for a stator winding arrangement in a stepper motor having a permanent magnet rotor with axial flux path.

49.46, for a stator winding arrangement in a reluctance-type stepper motor.

49.55 Start or stop locating feature (e.g., parking magnet, detent):
This subclass is indented under subclass 49.01. Subject matter including structure that determines the position of a rotor at the beginning or end of a step.

(1) Note. Structure commonly used to perform this function includes, for example, a parking magnet, a notch in the magnetic circuit, or an asymmetric rotor/stator shape.

216.001 Core:
This subclass is indented under subclass 179. Subject matter including specific structural detail of an element comprising a ferromagnetic material for concentrating magnetic flux along a low-reluctance flux path.

(1) Note. The core is commonly inductively coupled with a source of magnetic energy, and directs the flux from the source along a predetermined path in a motor or generator where the energy interacts with other elements of the machine to produce motion or electrical energy.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclasses 210-213, 216-219, 233, and 234 for magnetic core structure for use in an inductor, of which subclasses 233 and 234 is the general subclass for a core not elsewhere classified.

216.002 Pole-less core (i.e., slotless, toothless):
This subclass is indented under subclass 216.001. Subject matter including a magnetic core accommodating a winding thereon, the core lacking any pole extending therefrom.

(1) Note. The winding is commonly placed against a smooth-surfaced core instead of wound around a core extension or tooth.

216.003 Wire core:
This subclass is indented under subclass 216.001. Subject matter including a core comprised of an elongated slender rod or filament of magnetic material that is wound or coiled in plural turns, or bunched together in a manner sufficient to build the desired core cross-section.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.004-216.066**,** for laminated core structure.

216.004 Laminated core:
This subclass is indented under subclass 216.001. Subject matter including a core constructed of a plurality of superposed, thin layers (i.e., sheets) of magnetic material joined together into a unitary structure.

(1) Note. The plurality of layers may be formed from plural sheets of material superposed on one another, or a single sheet of material folded or wound on itself to form plural superposed layers.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.03, for a wire core.

216.057-216.063, for a laminated pole.

216.064, for a laminated pole tip.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclass 210 for an inductor core structure with means for fastening plural parts of the core or the core laminations into a single integral core; and subclass 213, for an inductor core structure formed of a continuous, wound strip or filament of magnetic material.

216.005 Having winding lead accommodation structure:
This subclass is indented under subclass 216.004. Subject matter including a laminated core with a means in the form of a recess, slot, channel or other passage on or through a portion of the core, for the specific purpose of containing an electrical conductor (i.e., lead) extending from a winding associated with the core.

216.006 Having particular grain orientation:
This subclass is indented under subclass 216.004. Subject matter including a laminated core having a lamination comprised of a sheet of ferromagnetic material having magnetic crystals (i.e., grains) aligned in generally the same direction or in a predetermined directional pattern, or a specified relationship of a crystal orientation of one lamination with respect to that of another lamination.

216.007 Plural laminated segments radially united:
This subclass is indented under subclass 216.004. Subject matter including at least two distinct sets of laminated core sections combined to form the core, wherein one section is positioned at a greater distance from the rotor axis than the other core section.

(1) Note. The core sections are commonly comprised of, for example, annular shaped sections of increasing diameter, wherein the sections are joined together generally along a circumferential border of each section having a common radius with the other section.

D. CHANGES TO THE DEFINITIONS

216.008 Plural axially laminated segments circumferentially united:
This subclass is indented under subclass 216.004. Subject matter including at least two distinct sets of laminated core sections combined to form the core, each section having laminations stacked in a direction parallel to the rotor axis, wherein one section is generally positioned at a similar distance from the rotor axis as the other core section, and joined to the other core section along a boundary in common with a radial line directed away from the rotor axis.

(1) Note. This subclass includes, for example, two axially-laminated C-core sections united face-to-face at their respective open ends; but it is not so limited to only two such arcuate sections joined together to form the core.

216.009 Having particular mating joint structure:
This subclass is indented under subclass 216.008. Subject matter including a core having a plurality of axially laminated sections circumferentially united, wherein there is a recited structural detail of the connection between the two sections.

216.011 Circumferentially offset laminations:
This subclass is indented under subclass 216.004. Subject matter including a laminated core having a plurality of laminations having a common structural feature, wherein the laminations are stacked in such a way that the feature in one of the laminations is not axially aligned with the like feature in the other lamination.

(1) Note. A laminated structure in this subclass commonly has similar laminations, where each lamination is rotated in the plane of the lamination with respect to the like feature of a mating lamination. However, it is not required that the laminations be identical.

216.012 Offset pole teeth:
This subclass is indented under subclass 216.011. Subject matter including a laminated core including a lamination having a radially extending pole tooth as the common structural feature that is circumferentially offset from a corresponding pole tooth in a mating lamination.

216.013 Having axially extended spirally-laminated core:
This subclass is indented under subclass 216.011. Subject matter including a laminated core wherein a lamina is helically wound both around and along an axis along a path similar to a screw thread, so that laminations formed by each turn are stacked in the axial direction of the axis.

(1) Note. The common structural feature is commonly formed at a plurality of positions on the lamina, wherein the distance between common features is such that the common features of adjacent turns do not axially align with one another after the lamina is wound into a core.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.041-216.044, for an axially extending spiral lamination.

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216.046-216.047, for having radially stacked laminations by spiral winding.

216.014 Offset cooling fins:

This subclass is indented under subclass 216.011. Subject matter including a laminated core including a lamination including a portion with a ventilation passage there through as the common structural feature that is circumferentially offset from a corresponding ventilation passage in a mating lamination.

SEE OR SEARCH THIS CLASS, SUBLCASS:

58+, for general cooling in a dynamoelectric machine by circulation of a cooling fluid, especially subclass 64, for a heat exchange structure in a dynamoelectric machine.

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear dynamoelectric machine.

52-65, for cooling of a rotary dynamoelectric machine, especially subclass 64, for a heat exchange structure in a dynamoelectric machine.

216.056, for a cooling fin defining an outer peripheral shape of a laminated core.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

227, for current collector cooling in a rotary dynamoelectric machine.

417, for a rotary dynamoelectric machine end shield having ventilation holes.

SEE OR SEARCH CLASS;

165, Heat Exchange, subclass 185 for a heat exchanger fin, per se.

216.015 Plural diverse elements:

This subclass is indented under subclass 216.004. Subject matter including a laminated core constructed of more than one element or section of distinct or unlike form or qualities.

(1) Note. The unlike form or qualities may be among differences in shape, size, or material, etc., but is not so limited; and/or may include a core section that is not laminated, for example.

216.016 Diverse laminations:

This subclass is indented under subclass 216.015. Subject matter including a laminated core in which the diverse elements are dissimilar laminations.

(1) Note. The plural different laminations may be diverse in their shapes, size or material.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.017, for a laminated core having both magnetic and nonmagnetic laminations.

216.017 Magnetic and nonmagnetic laminations:
This subclass is indented under subclass 216.016. Subject matter including a laminated core in which the diverse elements are a lamination of magnetic material and a lamination of non-magnetic material.

(1) Note. The magnetic and nonmagnetic laminated sheets may be stacked in an alternating sequence, or a portion of the laminated core may be formed by a group of laminated sheets of material that differs from the material in a different portion of the core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.016, for a laminated core having diverse laminations other than magnetic/nonmagnetic differences.

216.018 Different thicknesses:
This subclass is indented under subclass 216.016. Subject matter including a laminated core having a plurality of laminations that include a lamination of a first thickness and a lamination of a second thickness different from the first thickness.

216.019 Having diverse shapes to accommodate coil contour:
This subclass is indented under subclass 216.016. Subject matter including a laminated core formed with a plurality of laminations, wherein at least one of the laminations is shaped differently than at least one of the other laminations in an area where a winding is positioned, to provide a winding engaging surface that is variously shaped to mirror that of a varying surface shape of, or any bends in, the winding.

216.021 E-shaped:
This subclass is indented under subclass 216.004. Subject matter including a core formed of stacked laminations, wherein the peripheral shape of the lamination sheets, and that of the resulting core formed therefrom, resembles the letter “E” of the alphabet.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.023-216.039, for a C- or U-shaped laminated core.

216.055, 216.056, for a laminated core having a particular outer peripheral shape.

216.022 Having winding on center leg and magnetically coupled poles:
This subclass is indented under subclass 216.021. Subject matter including a laminated E-shaped core having a winding wound around the center extension, wherein the two outer extensions are magnetically connected.

(1) Note. The core may be comprised, for example, of two E-type cores arranged face-to-face in a mirror image arrangement where the two outer extensions are

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mechanically or magnetically connected to one another, with a winding around each respective center extension.

216.023 C- or U-shaped core:

This subclass is indented under subclass 216.004. Subject matter including a core formed of stacked laminations, wherein the peripheral shape of the laminations, and that of the resulting core formed therefrom, resembles the letter "C" or "U" of the alphabet, or having two side legs extending from each end of an arcuate section or "middle bend."

(1) Note. Each lamination may include plural sections, so long as the sections combined in each lamination layer resembles the letter "C" or "U", such as found in a split core that, when unified, resembles said letters.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.021, and 216.022, for an E-shaped laminated core.

216.055, and 216.056, for a laminated core having a particular outer peripheral shape.

216.024 Plural cores unified by magnetic coupling between poles, with a winding around the middle bend of each core:

This subclass is indented under subclass 216.023. Subject matter including more than one C- or U-shaped core, where the poles of each core are magnetically coupled to the poles of the other core to connect the cores together into a unitary core, and a winding is located around the middle bend portion of each core.

SEE OR SEE OR SEARCH THIS CLASS, SUBCLASS:

216.026, for two unified C- or U-shaped cores magnetically coupled together.

216.027, for similar structure in which structural coupling between poles is performed by a non-magnetic material.

216.032, for two unified C- or U-shaped cores coupled at the poles via a spring.

216.025 Two cores:

This subclass is indented under subclass 216.024. Subject matter wherein the number of plural cores is two.

SEE OR SEE OR SEARCH THIS CLASS, SUBCLASS:

216.026, for two unified C- or U-shaped cores magnetically coupled together.

216.027, for similar structure in which structural coupling between poles is performed by a non-magnetic material.

216.032, for two unified C- or U-shaped cores coupled at the poles via a spring.

216.026 Two cores unified by magnetic coupling between poles, with a winding on each side leg of each core:

This subclass is indented under subclass 216.023. Subject matter including two C- or U-shaped cores, where the poles of each core are magnetically coupled to the poles of the

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other core to connect the cores together into a unitary core, and a winding is located around on each side leg of each core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.025, for two unified C- or U-shaped cores magnetically coupled together.

216.027, for similar structure in which structural coupling between poles is performed by a non-magnetic material.

216.032, for two unified C- or U-shaped cores coupled at the poles via a spring.

216.027 Two cores unified by structurally coupled poles, with a winding around the middle bend of each core:
This subclass is indented under subclass 216.023. Subject matter including two C- or U-shaped cores, where the poles of each core are structurally coupled to the poles of the other core to connect the cores together into a unitary core, and a winding is located around the middle bend portion of each core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.025, for two unified C- or U-shaped cores magnetically coupled together.

216.026, for two unified C- or U-shaped cores magnetically coupled together.

216.032, for two unified C- or U-shaped cores coupled at the poles via a spring.

216.028 Having centrally-supported arcuate pole and a winding around each end of pole:
This subclass is indented under subclass 216.023. Subject matter including a C- or U-shaped core having a pole having a curved shape, and is supported from the core at a point between the two ends of the curve such that the pole has two portions extending from said point, and a winding is placed on each extension.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.029, for a core having plural unified C- or U-shaped cores and a pole winding.

216.029 Plural unified cores having a pole winding:
This subclass is indented under subclass 216.023. Subject matter including more than one C- or U-shaped core combined into a single core structure, having at least one pole with a winding located thereon.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.028, for a C- or U-shaped core having a centrally supported arcuate pole, and a winding around each end of pole.

216.031 Two cores:
This subclass is indented under subclass 216.029. Subject matter wherein the number of plural cores is two.

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216.032 Two cores unified by a joint spring coupling between poles:
This subclass is indented under subclass 216.023. Subject matter including two C- or U-shaped cores, where the poles of each core are structurally coupled to the poles of the other core to connect the cores together into a unitary core, wherein the means for structurally coupling is a resilient or elastic member.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.025, for two unified C- or U-shaped cores magnetically coupled together.

216.026, for two unified C- or U-shaped cores magnetically coupled together.

216.027, for similar structure in which structural coupling between poles is performed by a non-magnetic material.

216.033 Having winding around middle bend of core:
This subclass is indented under subclass 216.023. Subject matter including a single C- or U-shaped core having a winding placed around the middle bend of the core.

216.034 Having magnetically coupled poles:
This subclass is indented under subclass 216.033. Subject matter including a single C- or U-shaped laminated magnetic core having a winding wound around the center portion thereof, and magnetic material connected between the "open" ends of the C or U shape.

(1) Note. The "open" end of the C or U shape commonly defines two poles facing one another. The magnetic material connected between the "open" ends may be fastened to the "open" ends, or integrally formed with the C- or U-shaped core.

216.035 Double-section core:
This subclass is indented under subclass 216.033. Subject matter including a single C- or U-shaped core having a winding placed around the middle bend of the core, where the core comprises two sections joined together into a unitary core.

216.036 Having winding around core side leg:
This subclass is indented under subclass 216.023. Subject matter including a single C- or U-shaped core having a winding placed around a side leg of the core.

216.037 Winding around each side leg:
This subclass is indented under subclass 216.036. Subject matter including a single C- or U-shaped core having a winding placed around each side leg of the core.

216.038 Core side legs extend along rotor axis
This subclass is indented under subclass 216.023. Subject matter including a C- or U-shaped core positioned in relation to a rotor such that the legs are arranged to extend in the same general direction as the rotary axis of the rotor.

D. CHANGES TO THE DEFINITIONS

216.039 Core middle bend extends along rotor axis:
This subclass is indented under subclass 216.023. Subject matter including a C- or U-shaped core positioned in relation to a rotor such that the middle bend of the core is arranged to extend in the same general direction as the rotary axis of the rotor.

(1) Note. The middle bend of the core may be "stretched" or elongated to extend the distance of the rotor's length, with the core side legs positioned at respective axial ends of the rotor.

216.041 Having axially extended spiral lamination:
This subclass is indented under subclass 216.004. Subject matter including a laminated core wherein a lamina is helically wound both around and along an axis along a path similar to a screw thread, so that laminations formed by each turn are stacked in the axial direction of the axis.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.013, for an axially extending spirally-wound core with offset laminations.

216.047, for a radially-stacked, spirally-wound core having an axially-extended spiral-wound pole.

216.042 Having machined poles:
This subclass is indented under subclass 216.041. Subject matter including an axially extending spiral wound core, wherein poles are cut, ground, or otherwise machined into the laminated core.

216.043 Having bending notch:
This subclass is indented under subclass 216.041. Subject matter including a cut or nick in the edge of the lamina arranged to relieve stress in the lamina and allow it to more easily adapt to its desired axially extending spiral shape.

216.044 Having inter-layer mating projection and recess:
This subclass is indented under subclass 216.041. Subject matter including an axially extended spiral lamination that includes at least one depression, groove or other form of recessed area (i.e., recess) constructed and arranged to matingly receive a protruding element (i.e., projection) located on another area of the lamination, the recess and projection being further located with respect to one another along the lamination such that, when the lamination is wound, the adjacent laminations are secured in their wound position.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.048, for a radially laminated core with mating interfitting structure on the face of a lamination.

216.065, for a core having laminations secured by a bonding agent.

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216.045 Radially stacked:
This subclass is indented under subclass 216.004. Subject matter including a laminated core in which the laminations are built up in a radial direction with respect to the axial direction of the core.

(1) Note. When stacked in this manner, the edges of the laminations are substantially parallel to one another, with each edge generally extending along parallel paths of different radiuses from one another.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.062, for a radially laminated pole.

216.046 Spirally wound:
This subclass is indented under subclass 216.045. Subject matter including a radially stacked laminated core in which the stacking in the radial direction comprises a thin magnetic sheet coiled about an axis in continuous layers of increasing distance away from the axis.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.054, for a non-planer core lamination.

216.047 Having axially-extended spiral-wound pole:
This subclass is indented under subclass 216.046. Subject matter including a spiral-wound core having at least one spiral-wound pole projecting away from the core in a direction parallel to the rotor axis.

(1) Note. The spiral-wound pole may be separately spirally wound from and attached to the core, or it may be formed by slots cut into an axial end face of a spirally wound core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.013, for a laminated core having circumferentially offset laminations using an axially-extended spirally-wound lamination.

216.041, for a laminated core having an axially-extended spiral lamination.

216.048 Having interlamina mating structure on lamina face:
This subclass is indented under subclass 216.004. Subject matter including a projection or recess on a broad surface of a lamination (i.e., face) constructed and arranged to engage with a corresponding recess or projection, respectively, on an adjacent lamination to secure the laminations together into a unitary core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.044, for a mating projection and recess for securing laminations in an axially-extending spirally wound core.

D. CHANGES TO THE DEFINITIONS

216.049-216.052, for a laminated core having a lamination with a mounting ear.

216.113-216.065, for a core having structure for binding the core together into a unified core.

216.049 Having a lamination including a radially extending mounting projection (e.g., mounting ear):
This subclass is indented under subclass 216.004. Subject matter including a laminated core having at least one lamination having an integral structural extension that extends perpendicularly away from the rotor axis, for securing the laminated core to a core-supporting structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.113-216.065, for a core having a supporting means.

433, for a frame having an axial tie-bar dovetailed to a core for supporting the core.

216.051 Dovetail projection:
This subclass is indented under subclass 216.049. Subject matter including a laminated core having at least one lamination having a radially extending projection having a flared shape (e.g., dovetail) serving as a tenon that mates and interlocks with a corresponding mortise in the core-supporting structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

433, for a frame having an axial tie-bar dovetailed to a core for supporting the core.

216.052 Provided only on partial number of laminations:
This subclass is indented under subclass 216.049. Subject matter including a laminated core having a plurality of laminations with less than the full set of the laminations having a radially extending mounting projection; i.e., at least one lamination of the plurality lacks a radial projection.

216.053 Having integral spider (e.g., spokes):
This subclass is indented under subclass 216.004. Subject matter including a laminated core having a lamination including a main body portion having structurally unified radially-directed spokes extending therefrom for supporting the main body portion from a shaft.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.121, for a structure for supporting a core from a shaft.

420, for a frame having a spider mounted to a shaft.

216.054 Non-planar lamination (e.g., wavy):
This subclass is indented under subclass 216.004. Subject matter including lamination sheets stacked into a unitary core, wherein the surface of each sheet is a shape other than significantly flat.

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(1) Note. Significantly flat refers to the general overall shape of the surface, which may include, for example, projections or recesses on the surface for interlocking with adjacent laminations, etc., and still be considered significantly flat.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.013, for a spirally wound laminated core with circumferentially offset laminations.

216.046, 216.047, for a radially-stacked spirally wound laminated core.

216.055 Having a particular outer peripheral shape:
This subclass is indented under subclass 216.004. Subject matter including a laminated core having a specifically recited geometrical form or contour associated with its external perimeter.

SEE OR SEARCH THIS CLASS, SUBLCASS:

12.26, for a linear motor having a magnet or pole structure have a particular shape.

49.16, for a stepping motor with interfitting poles of a particular shape.

216.021, and 216.022, for an E-shaped laminated core.

216.023-216.039, for a C- or U-shaped laminated core.

216.069-216.073, for a core having a slot of a particular shape or with plural diverse pole shapes.

216.097, for a pole tip having a particular dimension.

216.111, and 216.112, for a core having a particular dimension.

216.056 Cooling fin:
This subclass is indented under subclass 216.055. Subject matter including wherein the outer peripheral shape includes a shape having a high surface-area to volume ratio for the purpose of efficiently dissipating heat from the core to a surrounding medium.

SEE OR SEARCH THIS CLASS, SUBCLASS:

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear dynamoelectric machine.

52-65, for cooling of a rotary dynamoelectric machine, especially subclass 64 for a heat exchange structure in a dynamoelectric machine.

216.014, for a cooling fin on a laminated core having circumferentially offset laminations.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

227, for current collector cooling in a rotary dynamoelectric machine.

417, for a rotary dynamoelectric machine end shield having ventilation holes.

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SEE OR SEARCH CLASS:

165, Heat Exchange, subclass 185 for a heat exchanger fin, per se.

216.057 Laminated pole:

This subclass is indented under subclass 216.004. Subject matter including a pole, per se, constructed of a plurality of superposed, thin layers of magnetic material joined together into a unitary structure.

(1) Note. The plurality of layers may be formed from plural sheets of material superposed on one another, or a single sheet of material folded or wound on itself to form plural superposed layers.

(2) Note. The laminated pole may be attached or attachable to a core body that is either laminated or non-laminated.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.064, for a laminated pole tip.

216.074-216.105, for non-laminated pole structure.

216.058 Securing means:

This subclass is indented under subclass 216.057. Subject matter including a specific recitation of an element or structure for holding the superposed sheets together into a unified or integral structure.

SEARCH THIS CLASS, SUBCLASS:

216.065, for a laminated core having a bonding agent between laminations.

216.113-216.137, for core securing means for supporting a core, or holding it together into an integral unit.

216.059 Alternating laminations:

This subclass is indented under subclass216.057. Subject matter including a laminated pole constructed of a plurality of groups of laminations that are superposed on each other in alternating layers.

216.061 Circumferentially stacked:

This subclass is indented under subclass 216.057. Subject matter including a laminated pole in which the laminations are built up (i.e., stacked) along a generally radial arc or portion of a circle having the axis of rotor rotation at the center.

(1) Note. When stacked in this manner, the edges of the laminations are substantially parallel to one another, with each edge generally extending along a radial line extending from the axis of rotation.

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216.062 Radially stacked:

This subclass is indented under subclass 216.057. Subject matter including a laminated pole in which the laminations are built up in a radial direction with respect to the intended axis of rotation of the motor or generator containing the core.

(1) Note. When stacked in this manner, the edges of the laminations are substantially parallel to one another, with each edge extending along generally parallel paths of different radiuses from the axis of rotation.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.045, for a radially stacked core.

216.063 Wound lamination:

This subclass is indented under subclass 216.057. Subject matter including a laminated pole wherein the plurality of superposed layers are formed by a thin sheet of material turned or coiled about itself so that each turn is superposed on a previous turn.

216.064 Laminated pole tip (e.g., shoe):

This subclass is indented under subclass 216.057. Subject matter including a laminated core having a particularly recited detail of a pole end face structure, or having a member (e.g. shoe) added to an end of a pole, wherein the added member is constructed of a plurality of superposed, thin layers of magnetic material joined together into a unitary structure.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.091, for non-laminated pole tip structure.

216.065 Adhesively bonded laminations:

This subclass is indented under subclass 216.004. Subject matter wherein the core laminations are secured together as an integral body via a sticking or adhering material placed between the laminations.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.044, for an axially-extended spirally wound core having an inter-layer mating projection and recess.

216.048, for a radially stacked laminated core having inter-layer mating structure on the face of a lamination.

216.137, for a bonding agent used to fix a core to a support structure or for fixing a core together as an integral body.

216.066 Homogeneous core or yoke (e.g., solid core):

This subclass is indented under subclass 216.001. Subject matter including a core or yoke formed from a ferromagnetic material having a substantially uniform structure or composition throughout the core.

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SEE OR SEARCH THIS CLASS, SUBLCLASS:

216.004-216.013, for a laminated core.

216.067 Molded magnetic powder resin:
This subclass is indented under subclass 216.066. Subject matter including a homogenous core or yoke constructed of a mass of magnetic particles dispersed in a resin binder, and formed into a single, solid mass of desired shape.

216.068 Reshaped magnetic element (e.g., bent sheet):
This subclass is indented under subclass 216.066. Subjected matter including a homogenous core or yoke constructed from a volume of ferromagnetic material that is bent, twisted, or otherwise forcibly rearranged from an initial shape into a final core shape.

216.069 Having slot of particular shape:
This subclass is indented under subclass216.001. Subject matter including a core have a groove or channel (i.e., slot) for accommodating a winding therein, wherein there is recited a specific detail of the slot's geometrical or spatial form or contour.

(1) Note. The slot commonly houses or provides a location to accommodate a winding.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.111, for a core having a particular dimension.

216.096, for a pole tip having an asymmetric shape.

216.097, for a pole tip having a particular dimension.

216.071 Plural diverse slot shapes:
This subclass is indented under subclass 216.069. Subject matter including a core having more than one slot, wherein at least one slot has a different shape than at least one other slot.

216.072 With plural diverse pole widths:
This subclass is indented under subclass 216.071. Subject matter including a core having plural diverse slot shapes, and further includes more than one pole, wherein at least one pole has a different width than at least one other pole.

216.073 With plural diverse pole shapes:
This subclass is indented under subclass 216.069. Subject matter including a core having a slot with a particular shape, and further includes more than one pole, wherein at least one pole has a different geometrical or spatial form or contour than at least one other pole.

216.074 Pole structure:
This subclass is indented under subclass 216.001.Subject matter including a specifically recited detail of a core's pole structure.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.057-216.064, for laminated pole structure.

216.112, for a core having a particular pole pitch.

216.075 Particular to switch reluctant machine:
This subclass is indented under subclass 216.074. Subject matter including a pole having a particular structural feature specifically adapted for use in a stator or rotor core of a switch reluctant type dynamoelectric machine.

216.076 Having integral flux shunt:
This subclass is indented under subclass 216.074. Subject matter including a core pole having a means included therein for diverting flux from a direct path between the opposite ends of the pole.

(1) Note. The shunt is commonly a means of establishing a higher reluctance area than the surrounding pole material.

216.077 Via hole:
This subclass is indented under subclass 216.076. Subject matter including a pole with an integral flux shunt comprised of an opening in the pole material that defines a higher reluctance flux path than the core material.

216.078 Pivotally mounted (e.g., hinged):
This subclass is indented under subclass 216.074. Subject matter including a core with a pole that is mounted on the core in such a manner that is can be turned or swiveled from one position to another, as by a hinge, or the pole is mounted on a core section adapted for similar movement with respect to another core section.

216.079 Removable pole:
This subclass is indented under subclass 216.074. Subject matter including a pole constructed and arranged to be separable from the remainder of the core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.098, for a pole tip that is removable from the remainder of the pole.

216.081 Having intermediate spacer:
This subclass is indented under subclass 216.079. Subject matter including an element mounted between the removable pole and core that positions the pole out of direct abutment with the core when fixed to the core.

216.082 Having wedge between pole and core:
This subclass is indented under subclass 216.079. Subject matter including a core having at least one removable pole that includes a tapered element forcibly inserted between the removable pole and the core.

D. CHANGES TO THE DEFINITIONS

216.083 Having threaded fastener (e.g., screw):
This subclass is indented under subclass 216.079. Subject matter including a means for removably fixing the pole to the core that comprises an elongated element including a spiral groove around the circumference of the element, wherein the elongated element bridges a portion of the pole and a portion of the core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.127 for a core secured by a threaded fastener.

216.084 With mating female threaded fastener element (e.g., bolt):
This subclass is indented under subclass 216.083. Subject matter including a threaded fastener for attaching a removable pole, wherein the threaded fastener includes a male-threaded fastener that is threadable into a female-threaded fastener separate and distinct from the pole or core.

216.085 Fastened through pole flange:
This subclass is indented under subclass 216.083. Subject matter including a removable pole having a projecting rim or extension (i.e., flange) through which a threaded fastener is positioned and utilized to removably fix the pole to the core.

216.086 Dovetail connection:
This subclass is indented under subclass 216.079. Subject matter including a removable pole having a flared tenon extending therefrom that is mateable with a mortise or other means on the core for removably holding the pole via engagement between the mortise and the tenon.

216.087 Having auxiliary bias force element:
This subclass is indented under subclass 216.086. Subject matter including a dovetailed removable pole, wherein the means for removably fastening the pole to the core includes means for applying pressure against the dovetail to aid in holding or maintaining the dovetail connection to the core.

216.088 Split pole:
This subclass is indented under subclass 216.086. Subject matter including a dovetailed removable pole, wherein the pole is comprised of plural sections.

216.089 Crimped connection:
This subclass is indented under subclass 216.079. Subject matter including a core with a removable pole that includes a portion that is deformably pressed, twisted or pinched together into fixed engagement with a portion of the core.

216.091 Pole tip (e.g., shoe):
This subclass is indented under subclass 216.074. Subject matter including a recitation of a structural detail of a pole end or face.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.064, for a laminated pole tip, or structural details of the end face of a laminated pole.

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216.092 Defining non-uniform air gap:
This subclass is indented under subclass 216.091. Subject matter including a pole having an end or face constructed and arranged to define one boundary end of a space (i.e., air gap) between the pole tip and another element defining an opposite air gap boundary face, wherein the distance between all points on the pole end or face and the opposite boundary face of the air gap are not the same distance.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.096, for an asymmetrically shaped pole tip.

216.093 Tapered tip:
This subclass is indented under subclass 216.092. Subject matter including a pole tip that has a cross-sectional area perpendicular to the direction between the boundary faces of the gap, wherein the cross-sectional area varies with distance away from the air-gap boundary end of the pole.

216.094 Via tip slot:
This subclass is indented under subclass 216.092. Subject matter including a pole tip that includes a grooved channel (i.e., slot) that defines the non-uniform air gap.

216.095 With electrical conductor in slot (i.e., winding):
This subclass is indented under subclass 216.094. Subject matter including an electrical conductor positioned in the slot in the pole tip.

216.096 Asymmetrically shaped:
This subclass is indented under subclass 216.091. Subject matter including a pole tip having a shape that is dissimilar on opposite sides of the center of the pole tip.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.092, for a pole tip that defines a non-uniform air gap.

216.097 Having a particular dimension:
This subclass is indented under subclass 216.091. Subject matter including a pole tip having a specifically recited spatial extent, e.g., length, width, height, etc.

(1) Note. The dimension may be expressed as a ratio of, for example, length to width, etc., for placement in this subclass.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.111, for a core having a particular dimension.

216.098 Removable tip:
This subclass is indented under subclass 216.091**.** Subject matter including a pole tip that is capable of being separated from the remainder of the pole.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.079-216.089, for a removable pole.

216.099 Magnetic inter-pole bridging structure:
This subclass is indented under subclass 216.091. Subject matter including a core having a plurality of poles, wherein at least two adjacent poles have ends that have a structural member formed of ferromagnetic material connected between the adjacent pole ends.

(1) Note. The bridging element may itself define a pole tip, or it can be an element separate from, or integral with, distinct pole tips or shoes on adjacent pole ends. The bridging element should be distinguished from magnetic material forming a core body from which the poles extend.

SEE OR SEARCH THIS CLASS, SUBCLASS:

214, for a coil retainer that bridges poles to hold a coil in a slot between poles.

216.104, for a nonmagnetic element positioned between two adjacent poles for holding a pole tip on a pole body.

216.101 Cylindrical bridging structure:
This subclass is indented under subclass 216.099. Subject matter including a core having a plurality of radially-inward extending poles having a bridging element or elements magnetically bridging the poles together at their inner radial ends, wherein the bridging element or elements together form a cylindrically shaped structure.

(1) Note. The cylindrically shaped structure can be a single cylindrical element connected to or integral with the pole ends, or a series of individual arcuate bridging members connected between adjacent poles that collectively form a cylindrically shaped structure in combination with the pole inner ends.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.103, for an arcuate shaped magnetic bridging member connecting two adjacent pole inner ends, where the member defines a pole tip common to two pole members.

216.102 Integral with radially extending poles:
This subclass is indented under subclass216.101. Subject matter wherein the cylindrical inter-pole bridging structure and the radially extending poles are constructed together as a unified structural unit.

216.103 Bridge defines distinct pole tip common to two adjacent poles:
This subclass is indented under subclass 216.099. Subject matter including a bridging structure that includes a bridge element that bridges only two adjacent poles, and functions as a single pole tip shared by the two adjacent poles.

D. CHANGES TO THE DEFINITIONS

216.104 With nonmagnetic inter-pole tip support:
This subclass is indented under subclass 216.091. Subject matter including a non-ferromagnetic element positioned between two adjacent poles for holding or fixing a pole tip against, or in a positional relationship to, a pole body.

SEE OR SEARCH THIS CLASS, SUBCLASS:

214, for a coil retainer that bridges poles to hold a coil in a slot between poles.

216.099-216.103, for a magnetic element for bridging adjacent pole ends.

216.113-216.065, for subject matter to attach a core to a support.

216.105 Insulated:
This subclass is indented under subclass 216.104. Subject matter including an inter-pole tip support that is electrically non-conductive or highly resistant to the passage of electric current.

216.106 Having flux guide:
This subclass is indented under subclass 216.001. Subject matter wherein the core includes a means for directing the flux within the core in a particular path.

(1) Note. The flux guiding means may include, for example, a slit or slot in the core that creates a localized higher reluctance path within the core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.076, for a pole structure having an integral flux shunt.

216.108, for a flux shield that reduces flux penetration in a particular portion of the core.

216.107 For reluctant rotor core:
This subclass is indented under subclass 216.106. Subject matter wherein the core is specifically designed for use in the moving element (i.e., rotor) of a machine of the reluctance type.

216.108 Having flux shield:
This subclass is indented under subclass216.001. Subject matter including a means for reducing penetration of flux into a particular portion of the core.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.076, for a pole structure having an integral flux shunt.

216.0106, for a flux guide that directs flux in a particular path.

216.109 Spaced-segment core:
This subclass is indented under subclass 216.001. Subject matter including a core comprising a plurality of individual core sections, wherein two adjacent core sections are mounted with respect to one another such that an air space is provided between the two adjacent sections.

D. CHANGES TO THE DEFINITIONS

216.111 Core having a particular dimension:
This subclass is indented under subclass 216.001. Subject matter including a core in which a specified measure of spatial extent of at least a portion of the core is recited.

(1) Note. Dimensions may include, for example, various radii at various portions of the core, the depth of a slot, the distance between poles, etc., but are not so limited to these examples.

SEE OR SEARCH THIS CLASS, SUBCLASS:

12.26, for a linear motor having a magnet or pole structure have a particular shape.

49.16, for a stepping motor with interfitting poles of a particular shape.

216.021-216.022, for an E-shaped laminated core.

216.023-216.039, for a C- or U-shaped laminated core.

216.069-216.073, for a core having a slot of a particular shape.

216.097, for a pole tip having a particular dimension.

216.112 Specific pole pitch:
This subclass is indented under subclass 216.111. Subject matter wherein the particularly recited dimension is pole pitch.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.074-216.105, for pole structure, per se.

216.113 Having a particular binding or supporting means:
This subclass is indented under subclass 216.001. Subject matter including a specifically recited means for either securing the core together as an integral body, or securing the core to a support structure.

(1) Note. Subject matter including significant core structure adapted for supporting the core via the core structure itself, a detailed structural relationship between a separate fixing means and the core, or a particular structure of the fixing means, per se, are classified in this and indented subclasses; whereas a core support (e.g., frame) having a means for supporting a nominal core is classified elsewhere. See Search Notes, below.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.004-216.014, for laminated core structure, particularly subclass 216.044, for a projection/recess for securing laminations in an axially spirally wound core; subclass 216.048, for a radially laminated core with mating interfitting structure on the face of a lamination; subclasses 216.049-216.052, for a laminated core having a lamination with a mounting ear.

216.058, for a laminated pole having means for securing the laminations into a unitary body.

D. CHANGES TO THE DEFINITIONS

216.079, for a means for supporting a removable pole to a core.

216.104, for a nonmagnetic pole tip support positioned between adjacent poles.

422, for a frame having a means for securing a core to the frame.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclasses 65-68 for mounting or support structure for an inductor.

216.114 End ring or plate:
This subclass is indented under subclass 216.113. Subject matter wherein the securing means comprises a band generally mounted along the periphery of an axial end face of a core, or a generally flat or planar member attached to an axial end face of a core, for securing core elements together as an integral body.

(1) Note. A ring or plate for this subclass is for the purpose of securing, for example, by bridging across core laminations or core sections to bind them together as a unit, as opposed to a mere enclosure, support or stator end shield, classified elsewhere.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.135, for a core secured by a circumferential clip.

400-417, for an end shield.

216.115 Insulated:
This subclass is indented under subclass 216.114. Subject matter including an end ring or end plate comprised of a material that is highly resistant or non-conductive to electrical current.

(1) Note. The insulation is commonly used to provide electrical insulation between the core and a coil or winding supported on the coil. The ring or plate may be comprised of insulating material, or include a layer of insulating material placed on the surface of the ring or plate.

216.116 Secured to shaft:
This subclass is indented under subclass 216.114. Subject matter wherein the end ring or end plate is fixedly attached to an elongated element (i.e., shaft) having an axis about which the core and elongated element rotate.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.119 for a core secured to a shaft by means other than an end ring or end plate.

420-424, for a frame secured to a shaft via a spider.

216.117 With balancing weight:

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This subclass is indented under subclass 216.116. Subject matter including an element having a particular mass positioned on the end ring or end plate and shaft combination such that the center of mass of the combination is located on the axis of the shaft.

216.118 Secured to frame:

This subclass is indented under subclass 216.114. Subject matter wherein the end ring or end plate is fixedly attached to the machine's frame or enclosure.

SEE OR SEARCH THIS CLASS, SUBLCASS:

418-433, for frame structure having means for supporting a core.

216.119 Having a cooling channel:

This subclass is indented under subclass 216.114. Subject matter including an end ring or end plate having a ventilation passage therein to permit heat to be dissipated from the core.

SEE OR SEARCH THIS CLASS, SUBLCASS:

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear dynamoelectric machine.

52-65, for cooling of a rotary dynamoelectric machine, especially subclass 60A, for circulation via hollow passages.

216.014, for a cooling fin on a core having circumferentially offset laminations in a rotary dynamoelectric machine.

216.056, for a cooling fin on a laminated core of a rotary dynamoelectric machine.

227, for current collector cooling in a rotary dynamoelectric machine.

417, for a rotary dynamoelectric machine end shield having ventilation holes.

216.121 Secured to shaft:

This subclass is indented under subclass 216.113. Subject matter wherein the support structure from which the core is supported is an elongated element (i.e., shaft) having an axis about which the core and elongated element rotate.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.053, for a laminated core having a lamination with an integral spider to support the core on a shaft.

216.116, for a core secured to a shaft via an end ring or end plate.

216.129, for a core is secured by an axially extending bar to hold the core together.

216.122 Two axial end shafts:

This subclass is indented under subclass 216.121. Subject matter wherein the shaft comprises two shafts, wherein each shaft is fixed to respective opposite axial ends of the core, without passing through the core.

D. CHANGES TO THE DEFINITIONS

216.123 Keyed to shaft:
This subclass is indented under subclass 216.121. Subject matter including a core secured to a shaft that further includes an element (i.e., key) for locking the core and shaft together to prevent relative movement between the core and shaft.

(1) Note. The key can be an element separate and distinct from the core and shaft, or an integral extension of one of the core and shaft.

216.124 Resilient securing means:
This subclass is indented under subclass 216.113. Subject matter wherein the means to secure the core to a support includes a material or structure that is capable of withstanding shock without permanent deformation or rupture (e.g., by a spring or elastic material, etc.).

SEE OR SEARCH THIS CLASS, SUBLCASS:

423, for a frame supported from a shaft-mounted spider with a resilient core supporting means.

431, for a frame having a resilient core supporting means.

216.125 Secured by wedge:
This subclass is indented under subclass 216.113. Subject matter wherein the means for fixing the core to a support includes a tapered element press fit in a narrow space between the core and the support.

216.126 Fastened wedge:
This subclass is indented under subclass 216.125. Subject matter including a wedge having means to fixedly attach the wedge in its wedging position to prevent it from slipping out of the wedging position.

216.127 Secured by threaded fastener (e.g., screw):
This subclass is indented under subclass 216.113. Subject matter wherein the means for fixing the core to a support includes an elongated element having an exterior helical projection (i.e., screw thread), wherein the elongated element passes through a bore in either one of the support or the core, and is engagable with mating threads on the other one of the support or core for holding the support and core in a fixed relationship.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.083, for a pole removably secured to a core by a threaded fastener.

216.128 Insulated fastener:
This subclass is indented under subclass 216.127. Subject matter wherein the threaded fastener is constructed of an electrically resistive or non-conductive material.

D. CHANGES TO THE DEFINITIONS

216.129 Secured by axially extending bar:
This subclass is indented under subclass 216.113. Subject matter including a core fixing means comprising a rigid elongated element that extends generally parallel to the axis of rotation of a machine in which the core is associated, and is attached to the core at one or more points to secure the core.

(1) Note. The axially extending bar may also serve as a means to secure the core to a supporting element.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.116, for a core supported on a shaft via an end ring or end plate.

216.121, for a core supported on a shaft.

432 and 433, for a frame having an axial tie bar for supporting a core.

216.131 Secured by axially directed clamping means (e.g., spring clip):
This subclass is indented under subclass 216.113. Subject matter including means for providing axially directed pressure at both axial ends of a core to bind elements or laminations of a core together into a unitary body.

(1) Note. The means for clamping commonly consists of a clip that spans the length of the core, with, for example, spring tensioned arms at the axial ends of the clip to provide axially directed pressure to squeeze core laminations together into a binding relationship.

(2) Note. The means for clamping the core into a unitary body may also serve to secure the core to a supporting element.

216.132 Positioned in core slot:
This subclass is indented under subclass 216.131. Subject matter wherein the core includes an axially extending depression or slot in its surface, and the clamping means is positioned in the depression or slot.

216.133 Positioned in axial through hole:
This subclass is indented under subclass 216.131. Subject matter wherein the core includes an axially extending bore from one axial end of the core to the other and the clamping means is located in the bore.

216.134 Integral with supporting element:
This subclass is indented under subclass 216.131. Subject matter wherein the clamping means comprises an element structurally united with a supporting means for the core.

216.135 Secured by circumferential clip:
This subclass is indented under subclass 216.113. Subject matter including core securing means comprising an element that extends at least partially around the outer periphery of the core and grips the core.

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216.136 Secured by weld:
This subclass is indented under subclass 216.113. Subject matter wherein the particular means for fixing the core to a support structure or fixing the core as an integral body includes a fusion bond created by heating.

216.137 Secured by bonding agent:
This subclass is indented under subclass 216.113. Subject matter wherein the particular means for fixing the core to a support structure or fixing the core as an integral body includes an attachment established via an adhesive material.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.065, for a bonding agent uses to secure laminations of a laminated core together.

254.1 Miscellaneous stator structure:
This subclass is indented under subclass 40. Subject matter related to stator structure, per se, not otherwise provided for.

(1) Note. This is the residual locus for miscellaneous stator structure for an electrical generator or motor that is not provided for elsewhere. Mere intended use as a stator is insufficient for original placement in this subclass if particular recited structure is provided for in earlier subclasses. Similarly, discretion should be exercised in placement in this subclass as a cross reference merely due to disclosed use as a stator.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclasses 210-213, 216-219, 233, and 234 for various features of magnetic core structure of inductive devices, of which subclass 233 is the general subclass for inductor device cores not elsewhere classified.

261.1 Miscellaneous rotor structure:
This subclass is indented under subclass 40. Subject matter relating to rotor structure, per se, not otherwise provided for.

(1) Note. This is the residual locus for miscellaneous rotor structure for an electrical generator or motor that is not provided for elsewhere. Mere intended use as a rotor is insufficient for original placement in this subclass if particular recited structure is provided for in earlier subclasses. Similarly, discretion should be exercised in placement in this subclass as a cross reference merely due to disclosed use as a rotor.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclasses 210- 213, 216-219, 233, and 234 for various features of magnetic core structure of inductive devices, of which subclass 233 in the general subclass for inductor device cores not elsewhere classified.

D. CHANGES TO THE DEFINITIONS

400 End shield:
This subclass is indented under subclass 40R. Subject matter including structure that bridges an open axial end of a stator.

(1) Note. An end shield generally encloses a stator opening, and may or may not provide support for rotor bearings. It may serve as one component of an overall enclosure or housing, and, in the case of providing support for a rotor by including bearings, act as a frame. It is not a requirement that a shield completely cover an end opening, since the shield may, for example, contain cooling openings therein, be comprised of a spoke- or mesh-type of structure, etc.

(2) Note. An end shield should be distinguished from an end ring, which is structure for bridging across axial ends of core laminations or core sections to bind them together as a unit.

(3) Note. An end shield should be distinguished from a frame, which is a structural element for supporting a core. Although an end shield may act as a frame member, an end shield must bridge or enclose an axial end opening.

SEE OR SEARCH THIS CLASS, SUBCLASS:

85-89, for a mechanical shield or protector for a rotary machine, particularly subclass 89 for a housing, window or cover.

90, 90.5, for bearing or air-gap adjustment or bearing lubrication.

91, for supports.

216.114-216.119, for a core end ring or plate.

418-431, for frame structure, particularly subclass 425, for a base platform including a bearing support.

401 Having legs for supporting a bearing (e.g., spokes):
This subclass is indented under subclass 400. Subject matter including an end shield having structure including a plurality of elongated members extending in a direction radially away from the rotary axis of the rotor for supporting a rotor bearing.

SEE OR SEARCH THIS CLASS, SUBLCASS:

90, 90.5, for bearing or air-gap adjustment or bearing lubrication.

425, for a base platform including a bearing support.

402 Having particular frame- or core-mating feature (e.g., keyed, projection/recess):
This subclass is indented under subclass 400. Subject matter including an end shield having a specifically recited detail relating to structure providing for a cooperatively abutting relationship between the end shield and a stator support structure (i.e., frame) or the axial end of a core.

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403 Threaded mating surface:
This subclass is indented under subclass 402. Subject matter including an end shield including an integral helical rib (i.e., screw thread) projecting from a surface thereof and arranged to mate with a corresponding screw thread on an element to which the end shield is to be attached or supported.

(1) Note. The end shield is commonly threadably attached to a frame or core end. The threaded surface of the end shield should be distinguished from a threaded surface of a separate and distinct member (e.g., bolt, etc.) used to fasten the end plate.

404 Folded Rim:
This subclass is indented under subclass 402. Subject matter including an end shield having a peripheral edge region that is bent, crimped, or otherwise deformed from the general shape of the remainder of the end shield to be matingly engageable with the corresponding mating surface of the support structure.

405 Recessed into frame or core:
This subclass is indented under subclass 400. Subject matter including an end shield that is sized, shaped, or otherwise structurally arranged to be located inside of the periphery of an axial end surface of a frame or core.

406 Cup-shaped end shield connected to another end shield:
This subclass is indented under subclass 400. Subject matter including an end shield that having a shape generally resembling a cup with an open end and a closed end, where the closed end is attached to a separate and distinct end shield.

(1) Note. The cup-shaped end shield commonly functions as an integrated stator support frame and end shield for one axial end of the stator with the other end shield arranged at the opposite axial end, together forming a frame and enclosure.

407 Two cup-shaped end shields:
This subclass is indented under subclass 406. Subject matter including two cup-shaped end shields joined together at their respective open ends.

(1) Note. The joined end shields commonly function as an enclosure and/or frame.

408 Having distinct connecting frame:
This subclass is indented under subclass 407. Subject matter including two cup-shaped end shields joined structurally together at their respective open ends by core support structure located between the respective open ends of the end shields.

SEE OR SEARCH THIS CLASS, SUBLCASS:

410, for a core-supporting frame located between two end shields.

D. CHANGES TO THE DEFINITIONS

409 Having overlapped open ends (e.g., telescoped open ends):
This subclass is indented under subclass 407. Subject matter including two cup-shaped end shields joined together by locating the open end of one end shield inside of the open end of the other end shield.

410 Having frame between two end shields:
This subclass is indented under subclass 400. Subject matter having an end shield, respectively, at each axial end of a stator, and a separate and distinct core support (i.e., frame) structurally positioned at a location intermediate the two end shields.

(1) Note. The frame is commonly supports the stator and is connected to each end shield to collectively operate as an enclosure or housing.

SEE OR SEARCH THIS CLASS, SUBCLASS:

85-89, for a mechanical shield or protector for a rotary machine, particularly subclass 89, for a housing, window, or cover.

90, for a support.

408, for a core supporting frame located between two cup-shaped end shields.

418-431, for a frame, per se.

411 Particularly adapted to be secured to a core end ring:
This subclass is indented under subclass 400. Subject matter including an end shield particularly constructed and arranged to be structurally attached to a band (i.e., end ring) generally mounted along the periphery of an axial end face of a core, or a generally flat or planar member attached to an axial end face of a core, for securing core elements together as an integral body.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.114, for an end ring.

412 Particularly adapted for use with impregnated core:
This subclass is indented under subclass 400. Subject matter including an end shield particularly constructed and arranged to be structurally associated with a core having inner spaces filled with a material for binding laminations of the core together or for otherwise minimizing vibration of the laminations in the core.

(1) Note. The material used to fill the spaces is commonly a resin. The particular structure of the end shield may include a structural arrangement for permitting or aiding insertion of impregnating material after the end shield is structurally supported with respect to the core, or any other particular feature such as, but not limited to, a fastening arrangement particularly for use with an impregnated core.

D. CHANGES TO THE DEFINITIONS

413 Having particular mounting fastener detail:
This subclass is indented under subclass 400. Subject matter including an end shield having a specific recitation of a means for attaching the end shield to a frame, core or other structure to which the end shield is to be attached.

(1) Note. The particular detail may include recitation of auxiliary or perfecting elements of the fastener, including, but not limited to, o-rings, spacers, nuts, collars, etc.

SEE OR SEARCH THIS CLASS, SUBLCASS:

403, for an end shield having an integral threaded surface for attaching an end shield to another structure.

404, for an end shield having a folded rim.

414 Core fastener with insulated bushing:
This subclass is indented under subclass 413. Subject matter including an end shield with means to attach the end shield to a core, where the means to attach includes an elongated member capable of extending into and/or through a bore in the core, the elongated member further including an electrically non-conductive sleeve (i.e., bushing) surrounding the elongated member for the purpose of keeping the fastener from directly contacting the bore's surface.

415 Plural distinct mounting fasteners:
This subclass is indented under subclass 413. Subject matter including at least one first structural member (i.e., fastener) for attaching an end shield to a frame or other structure to which the end shield is to be attached, and at least one second fastener in addition to the first mentioned fastener that is characterized by a dissimilar structure or dissimilar fastening mode from that of the first fastener.

416 Having coil lead retainer:
This subclass is indented under subclass 400. Subject matter including an end shield including means for supporting and holding a wire (i.e., lead) that extends from a core winding.

417 Having ventilation hole:
This subclass is indented under subclass 400. Subject matter including an end shield having an opening there through specifically constructed and arranged to provide a passage for heat to escape from the interior of the motor or generator by the passage of air or other heat laden fluid through the end shield.

SEE OR SEARCH THIS CLASS, SUBLCASS:

16, for cooling of a reciprocating motor or generator.

12.29, for cooling of a linear dynamoelectric machine.

52-65, for general cooling in a dynamoelectric machine by circulation of a cooling fluid, especially subclass 60, for circulation via hollow passages and subclass 64, for a heat exchange structure in a dynamoelectric machine.

D. CHANGES TO THE DEFINITIONS

216.014, for a cooling fin on a core having circumferentially offset laminations in a rotary dynamoelectric machine.

216.056, for a cooling fin on a laminated core of a rotary dynamoelectric machine.

216.119, for a cooling channel in the end ring of a core of a rotary dynamoelectric machine.

227, for current collector cooling in a rotary dynamoelectric machine.

418 Frame:
This subclass is indented under subclass 40. Subject matter including a structural element or plurality of interrelated elements, per se, that are constructed and arranged to support a core.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.113-216.065, for a core having structure for securing the core to a support structure.

SEE OR SEARCH CLASS:

336, Inductor Devices, subclasses 65-68 for mounting or support structure for an inductor.

419 Adjustable:
This subclass is indented under subclass 418. Subject matter including a frame that is repositionable with respect to a supported core, or includes elements that are repositionable with respect to each other.

420 Shaft mounted spider (e.g., spokes):
This subclass is indented under subclass 418. Subject matter including a frame having a plurality of radially extending arms (i.e., spokes) extending from an axle.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.053, for a laminated core having a lamination with an integral spider.

421 Having particular spoke:
This subclass is indented under subclass 420. Subject matter including a specifically recited structural detail of a radial spoke member in the spider.

422 Having particular core securing means:
This subclass is indented under subclass 420. Subject matter including a specifically recited structural detail of a means for connection of a core to its supporting structure.

(1) Note. A core support (e.g., frame) having a means for supporting a nominal core is classified in this and indented subclasses; whereas subject matter including significant core structure adapted for supporting the core via the core structure itself, a detailed structural relationship between a separate fixing means and the core, or a particular structure of the fixing means, per se, are classified elsewhere. See Search Notes, below.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.049-216.052, for a laminated core having laminations with integral mounting projections.

216.113-216.065, for a core having structure for securing the core to a support structure.

423 Resilient:
This subclass is indented under subclass 422. Subject matter including a core connection having an elastic, springy, or flexible characteristic.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.124, for a resilient mounting means for a core.

431, for a resilient core attachment means associated with a frame other than a spider type frame.

424 Having a particular hub:
This subclass is indented under subclass 420. Subject matter including a specifically recited structural detail of a means for structural connection between a spoke or spokes and the shaft.

425 Base with bearing support:
This subclass is indented under subclass 418. Subject matter including a frame comprising an open platform, stage or foundation (i.e., base) for supporting a core, with at least one structural element extending from the base, the structural element including means for supporting a shaft for sliding movement (i.e., bearing) with respect to the base.

SEE OR SEARCH THIS CLASS, SUBLCASS:

90, 90.5, for bearing or air-gap adjustment, or bearing lubrication.

401, for an end shield having a bearing support.

426 Leg-supported from base:
This subclass is indented under subclass 418. Subject matter including a frame having a platform, stage or foundation (i.e., base) from which the frame is held by one or more elongated beams (i.e., legs) extending between the base and the frame to hold the frame in spaced relation to the base.

427 Supported by axial bar:
This subclass is indented under subclass 418. Subject matter including a frame having an elongated beam or rail (i.e., bar) connected to the frame in a manner that the bar's longitudinal dimension extends generally parallel to the line (i.e., axis) about which the rotor rotates, the bar serving to hold the frame in position.

SEE OR SEARCH THIS CLASS, SUBLCASS:

216.129, for an axially extended bar for holding core elements together.

D. CHANGES TO THE DEFINITIONS

428 Axially split frame:
This subclass is indented under subclass 418. Subject matter including a frame having a plurality of sections joined together along a joint or seam that runs generally parallel to a shaft or rotor axis.

(1) Note. A split frame should be distinguished from a pair of end shields joined together, as by axially extending portions of a frame, end shields mated together by a seam generally perpendicular to the rotor axis, etc. A split frame is commonly composed of, for example, half cylinder members joined together along a seam parallel to the rotor axis.

SEE OR SEARCH THIS CLASS, SUBLCASS:

400-417, for plural end shields that may be mated to form a frame, or mated to a separate frame.

429 Having air gap:
This subclass is indented under subclass 428. Subject matter including a split frame that does not completely surround its supported core.

(1) Note. The gap may, for example, be positioned between adjacent ends of a pair of sections; as by, for example, two half cylindrical sections being joined only along one axial seam, with their other ends spaced apart.

430 Welded sections:
This subclass is indented under subclass 428. Subject matter including a plurality of frame sections having an axially extending joint united by heat fusion.

431 Having resilient core attachment means:
This subclass is indented under subclass 418. Subject matter including an elastic, springy or flexible member for connecting a core to the frame.

(1) Note. The spring mount is commonly used to support the core in a manner to reduce vibration and/or noise through the machine, to promote cooling ventilation, etc.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.124, for a core structure including a resilient securing means.

423, for a resilient core attachment means associated with a spider type frame.

432 Having axial tie bar for attaching core:
This subclass is indented under subclass 418. Subject matter including an elongated beam mounted on the inner periphery of a frame, and extending along the axial direction of the frame, the bar being connectably engageable with a core for supporting the core from the frame.

D. CHANGES TO THE DEFINITIONS

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.129, for a core having an axially extending bar for holding core elements together.

433 Dovetailed to core:
This subclass is indented under subclass 432. Subject matter including an axial tie bar that is connectably engageable with a core via an interlocking mortise and flaired-tenon joint.

SEE OR SEARCH THIS CLASS, SUBCLASS:

216.051, for a laminated core having dovetail mounting ears.

FOREIGN ART COLLECTIONS

The definitions below correspond to the abolished subclasses from which these collections were formed. See the Foreign Art Collection schedule of this class for specific correspondences. [Note: The titles and definitions for *indented* art collections include all the details of the one(s) that are hierarchically superior.]

FOR 102 Linear:
Foreign art collection for subject matter in which the dynamoelectric effect takes place between two relatively movable elements which are constrained to substantially straight line motion.

(1) Note. This subclass relates, for example, to devices which normally act only in a single direction such as an aircraft of projectile launching mechanism.

FOR 103 With assembling, metal casting or machining feature:
Foreign art collection for subject matter in which separate means are provided, or in which one or more parts are modified, to facilitate the process of (1) associating together, (2) casting of molten metal, or (3) surface cutting, of one or more of component parts.

FOR 104 Step-by-step:
Foreign art collection for subject matter having means to cause rotation between two or more positions of rest and to stop at a selected position of rest until an adjustment is made which causes rotation to another position of rest.

(1) Note. This subclass relates, for example, to magnetic motors which are in the nature of servo motors or follow-up devices.

FOR 105 Core features:
Foreign art collection for subject matter relating to core features.

D. CHANGES TO THE DEFINITIONS

FOR 106 Securing laminae:
Foreign art collection for subject matter relating to means for securing laminae.

FOR 107 Pole assembly and securing means:
Foreign art collection for subject matter relating to pole assembly and securing means.

FOR 108 Stator structure:
Foreign art collection for subject matter relating to pole assembly and securing means.

FOR 109 Frame and core type:
Foreign art collection for subject matter relating to stator structure of the frame and separate core type.

FOR 110 Core assembly:
Foreign art collection for subject matter relating to core assembly.

FOR 111 Rotor structure:
Foreign art collection for subject matter relating to rotor structure, per se.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 318- ELECTRICITY: MOTIVE POWER SYSTEMS

Definitions Modified:

Subclass 38: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear motor, per se.

Subclass 135: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear motor, per se.

Subclass 685: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 12.05 for a linear motor structure designed as an X-Y positioner; subclass 12.17 for a linear stepping motor; and subclasses 49.01-49.55 for a rotary stepping motor, per se.

D. CHANGES TO THE DEFINITIONS

Subclass 687: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 12.01-12.33 for a linear motor, per se.

Subclass 696: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor structure, subclasses 49.01- 49.55 for a rotary stepping motor, per se.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 334- TUNERS

Definitions Modified:

Subclass 10: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclasses 14, 23, 24, 30, 34, and 35 for a solenoid motor structure, per se; subclass 12.17, for a linear stepping motor; and subclasses 49.01- 49.55, for a rotary step-by-step motor structure.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 335- ELECTRICITY: MAGNETICALLY OPERATED SWITCHES, MAGNETS, AND ELECTROMAGNETS

Definitions Modified:

Subclass 272: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, appropriate subclasses, for rotary electric dynamoelectric machine structure, especially subclass 261.1, for a rotor structure.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 336- INDUCTOR DEVICES

Definitions Modified:

Subclass 210: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, particularly subclasses 216.113-216.065, for core structure for a rotary type dynamoelectric machine with means for securing core elements into an integral unit.

Subclass 212: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, particularly subclasses 216.001-216.014, for dynamoelectric machine core structure, including plural part cores; subclass 261.1, for stator structure; and subclass 261.1, for rotor structure.

Subclass 214: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

D. CHANGES TO THE DEFINITIONS

Insert:

310, Electrical Generator or Motor Structure, particularly subclasses 216.001-216.014, for dynamoelectric machine core structure, including a core with plural magnetic paths; subclass 261.1, for stator structure, and subclass 261.1, for rotor structure.

Subclass 216: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, particularly subclasses 216.001-216.014, for dynamoelectric machine core structure, including core joint structure; subclass 261.1, for stator structure, and subclass 261.1, for rotor structure.

Subclass 217: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, particularly subclasses 216.001-216.014, for dynamoelectric machine core structure, including core joint structure, especially subclasses 216.004-216.014, for a laminated core; subclass 261.1, for stator structure, and subclass 261.1, for rotor structure.

Subclass 233: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

D. CHANGES TO THE DEFINITIONS

310, Electrical Generator or Motor Structure, particularly subclasses 216.001-216.014, for dynamoelectric machine core structure; subclass 261.1, for stator structure; and subclass 261.1, for rotor structure.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 361- ELECTRICITY: ELECTRICAL SYSTEMS AND DEVICES

Definitions Modified:

Subclass 600: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310	Electrical Generator or Motor Structure, subclass 89 for a housing, window, or cover in a rotary dynamoelectric machine having a mechanical shield or protector; and subclasses 348-359, for a non-dynamoelectric piezoelectric device with mounting or support means.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 362- ILLUMINATION

Definitions Modified:

Subclass 386: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, appropriate subclasses, for an electric motor, particularly subclasses 12.01-12.33, for a linear motor, per se; and subclasses 49.01-49.55, for a rotary stepping motor.

Subclass 526: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, appropriate subclasses, for an electric motor, particularly subclasses 12.01-12.33, for a linear motor, per se; and subclasses 49.01-49.55, for a rotary stepping motor.

D. CHANGES TO THE DEFINITIONS

D. CHANGES TO THE DEFINITION (Project No. E-5809)

CLASS 396- PHOTOGRAPHY

Definitions Modified:

Subclass 244: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 12.05, for a linear motor structure designed as an X-Y positioner; subclass 12.17, for a linear stepping motor; and subclasses 49.01-49.55, for a rotary stepping motor, per se.

Subclass 256: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

Insert:

310, Electrical Generator or Motor Structure, subclass 12.05 for a linear motor structure designed as an X-Y positioner; subclass 12.17, for a linear stepping motor; and subclasses 49.01-49.55, for a rotary stepping motor, per se.

Subclass 260: Under SEE OR SEARCH CLASS:

Delete:

The reference to Class 310.

D. CHANGES TO THE DEFINITIONS

Insert:

310, Electrical Generator or Motor Structure, subclass 12.05 for a linear motor structure designed as an X-Y positioner; subclass 12.17, for a linear stepping motor; and subclasses 49.01-49.55, for a rotary stepping motor, per se.